

# LITHOGRAPHY

DECEMBER - 1946 / VOLUME 14 NUMBER 12

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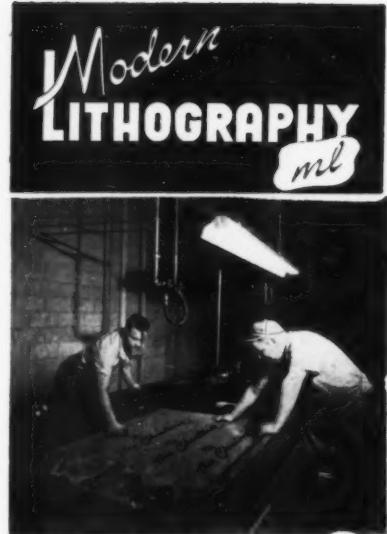
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### THE COVER

*Another of the series of photographs of the new Haynes Lithograph plant, Silver Spring, Md. Like the litho plate on the cover we wish you all a merry ho'iday this Christmas this Christmas.*

DECEMBER, 1946

VOLUME 14, No. 12

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ROBERT P. LONG  
*Editor*

IRENE H. SAYRE  
*Technical Editor*

THOMAS MORGAN  
*Business Manager*

Address all correspondence to  
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# KEEPING IN TOUCH



PREPARED BY INTERNATIONAL PRINTING INK DIVISION OF INTERCHEMICAL CORPORATION

• DECEMBER, 1946

## New Offset Blanket an IPI Exclusive

A new all-purpose offset blanket, offered exclusively by IPI, shows performance characteristics which make it ideal for use with Vapolith inks or conventional inks. This makes it suitable for any type of paper lithography.

To give good performance an offset blanket should have the following characteristics: (1) The surface must be such that embossing will not occur under normal operations. (2) The blanket must not stretch progressively after being properly installed on the press. (3) The blanket must have life. (4) In order to offset properly, the blanket must have "tack", which is the ability to hold and retain ink throughout the life of the blanket. Many blankets in use today lose their "tack" after standing unused for any length of time.

The new all-purpose IPI offset blanket has been manufactured in small quantities and is being tested in a few commercial plants. Reports received so far indicate that the new blanket offers to the offset lithographer definite advantages over older-type blankets now on the market.

## New Drying Stimulator

It frequently occurs that certain forms and inks containing certain pigments require an excessive amount of drying time, other conditions being equal. This slows the production of "work and turn" jobs. More drier is not always the answer because there is a limit to the amount of drier which can be added to such inks without adversely affecting their working qualities on the press.

The drying time of such jobs can be accelerated by introducing IPI Litho Drying Stimulator into the fountain water. It replenishes semi-automatically the catalytic metal which has become partially inactivated by the fountain solution.

Litho Drying Stimulator does not replace driers; but in cases of exceedingly poor-drying items, it enables you to add through the fountain phase much more catalytic metal than can ordinarily be added directly to the ink under usual conditions.

## Lithographed Escape Maps Make Attractive Head Scarfs



*Aviators' escape maps colorfully lithographed on fine quality rayon are now in vogue as head scarfs. The map illustrated was intended for use in the French Guiana region. Inks used had to withstand humid weather, extreme heat and water immersion.*

Girls have discovered that the colorful rayon maps once carefully carried in escape kits by air crew members make attractive head scarfs. Their wartime purpose was to enable grounded airmen to find their way back to friendly territory. Now the maps, which are made of fine quality rayon lithographed in many colors, have found their way into retail stores for decorative and apparel purposes.

The maps were made to exacting specifications. The cloth, and of course the inks with which the maps were litho-

graphed, had to withstand humid weather, extreme heat and cold, and water immersion. It was no easy job to engineer offset inks that would meet these specifications; but the ink makers did it and the maps were produced in several of the country's leading offset shops. The one worn by the sweet young thing in the picture was lithographed with IPI offset inks.

For the latest in lithographic news and techniques write: International Printing Ink, Division of Interchemical Corporation, 350 Fifth Avenue, New York 1, N.Y.

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In this, the nineteen hundred and forty-sixth anniversary of the birth of Christ, let each American rededicate himself to faith in God—faith in this great nation of ours—faith in his fellowmen—and faith in himself. In these confusing times, let us remember that the foundation of our country was laid on Christian precepts, faith, courage, foresight, and freedom from tyranny. Let us, then, on this natal day of our Redeemer, pray for His guidance that we may have strength, courage, and understanding to carry on the faith of our fathers.

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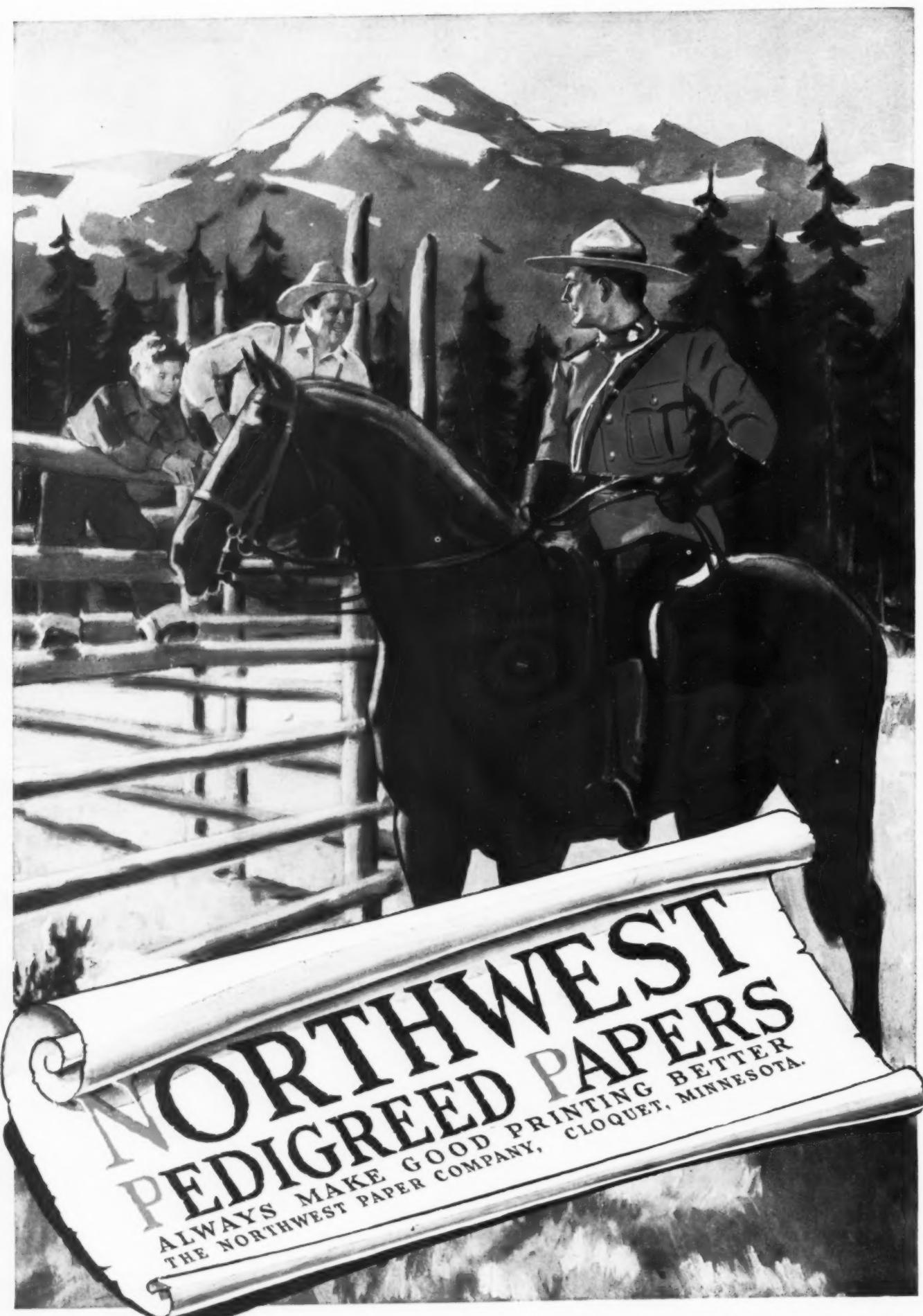
The year 1886, when Mergenthaler's first linotype machine was put into operation, opened up a new era in the history of printing. Spurred by this and by other great inventions, printing volume began to climb rapidly and paper—carrier of the printed word—has since been produced in ever-increasing quantities. • In 1886 Bulkley, Dunton had already passed its 50th anniversary. But the young, progres-

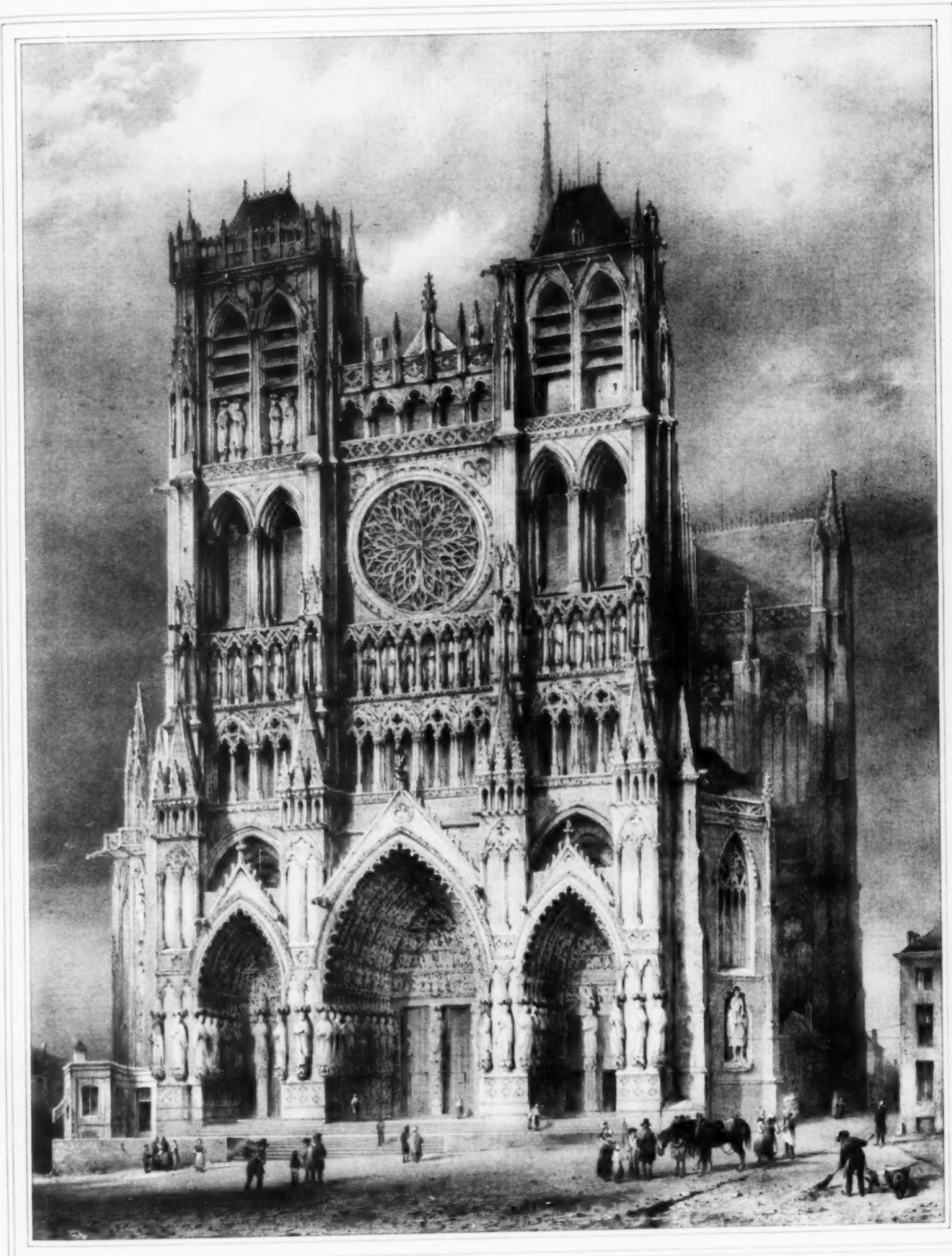
sive spirit of the company was just as much evident then as it is today, when the paper and graphic arts industries are on the threshold of another new era of expansion and prosperity.

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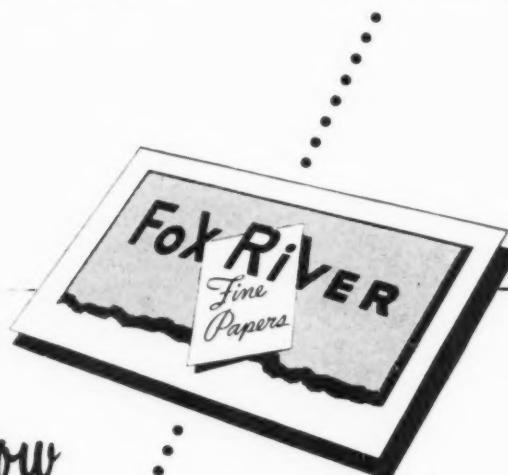
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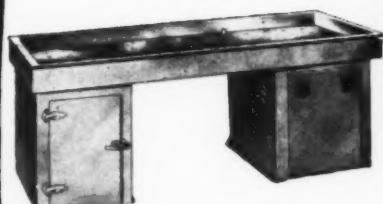
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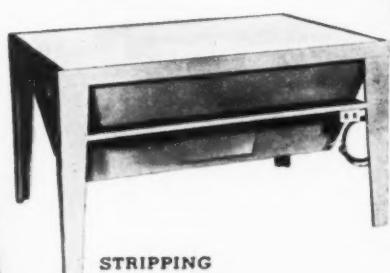
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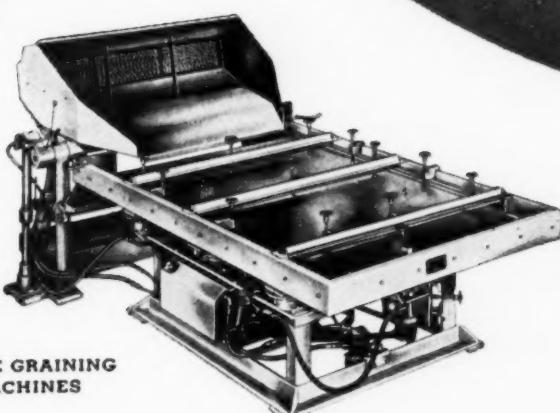


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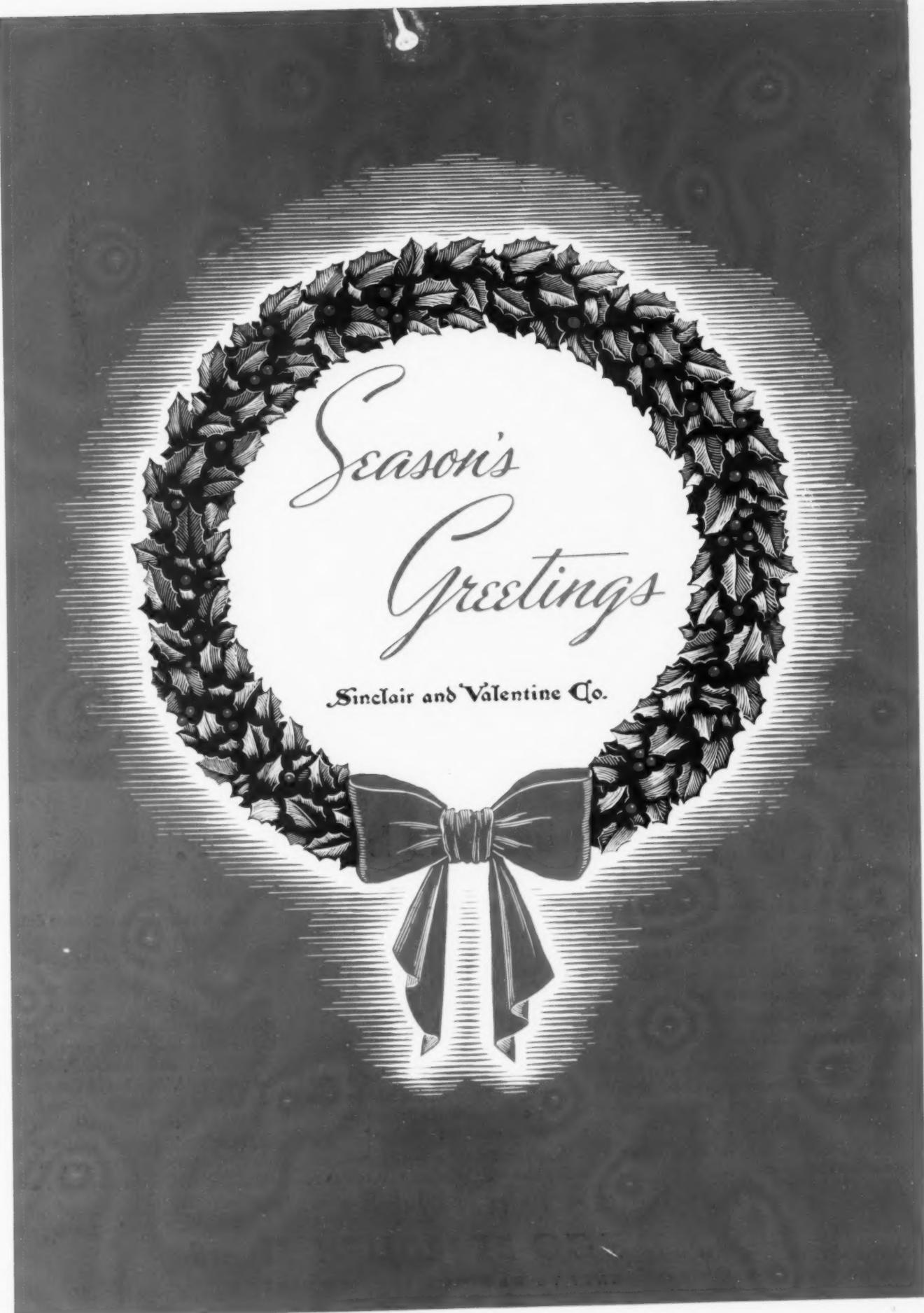
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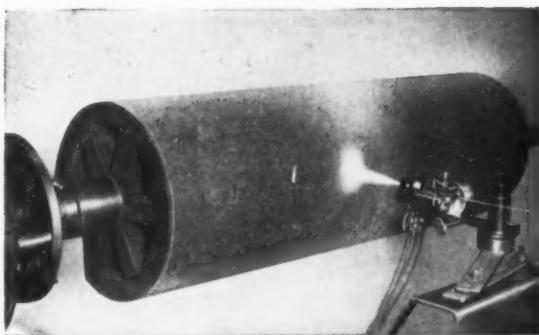
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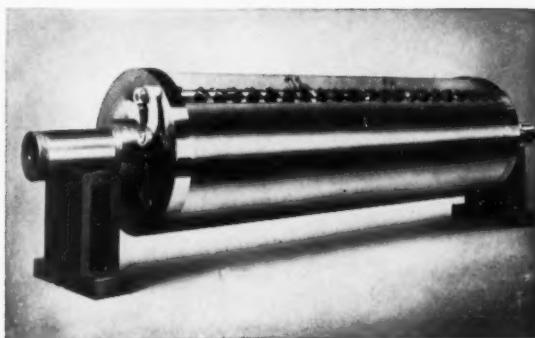
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For the past twenty years, Arthur Tickle Engineering Works has specialized in reconditioning for the trade, damaged printing press cylinders, or cylinders that have been reground previously on the bodies and are too small in diameter. In our modern plant, damaged cylinders have been turned down on the surface and sprayed with metals such as Hard Stainless Steel, High Carbon Steel, Monel Metal, and 18-8 Stainless Steel. Cylinders rebuilt by our process are more durable than new cylinders because of the increased hardness of the deposited metal and its resistance to corrosion. After spraying, cylinders are ground with precision accuracy to their original diameter or to any diameter desired. The thickness of the sprayed metal is controlled to vary from  $\frac{1}{32}$ " to  $\frac{1}{8}$ " on the side.

The journals of the cylinders, if scored or worn, are rebuilt with High Carbon Steel (363 Brinell hardness) and ground to standard diameter, with a resulting increase in wear.

Other techniques in which Tickle Engineering specializes include the reconditioning with High Carbon Steel of scored ink fountain rolls, ink cylinder journals of various ink rolls, dampening rolls, and various drive shaft journals.

Worn cylinder eccentric bearings are generally metal sprayed with High Carbon Steel on the outside diameter and with hard babbitt on the inside diameter for straight journals, and with Hard Stainless Steel on the inside for ball bearings.

Tickle Engineering is equipped to spray any metal obtainable in wire form, on any surface round or flat, if it is a printing press cylinder, water trough, or the inside of a tank.

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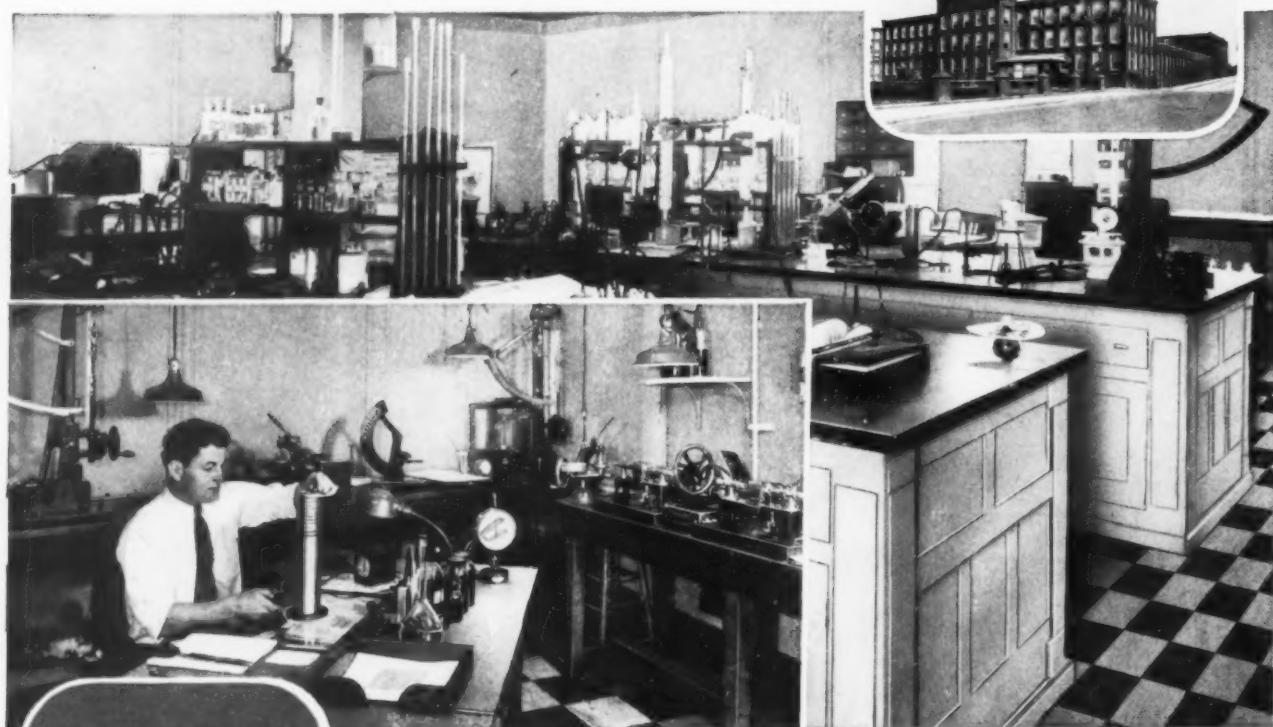
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*To Protect an "Ideal"*

Riverside Mill — Built 1892



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Peace and security at Christmastime*

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PRECISION

USED AROUND THE WORLD  
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ADVERTISING DESIGNED TO  
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A YOUNG KID may hear nothing discordant in beating on an old tin bucket, but thank goodness for age and tympany. Thank goodness, too, for Lithography. Lithography is the tympany of printed selling . . . assuring absolute trueness of reproductive intent . . . the crystal-clear tonal values that present your products the way you want them presented.

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Call in your local Lithographer. Tell him and test him. You'll discover him to be a business man with a very definite stake in the field of printed salesmanship. And as such, a smart man to tie to.

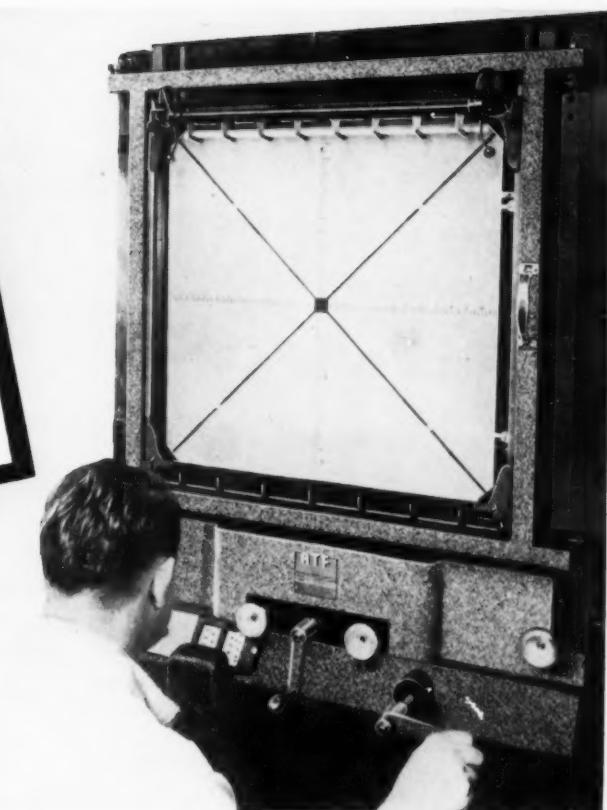
## NATIONAL ASSOCIATION of PHOTO-LITHOGRAPHERS

1776 BROADWAY  
NEW YORK 19, N. Y.



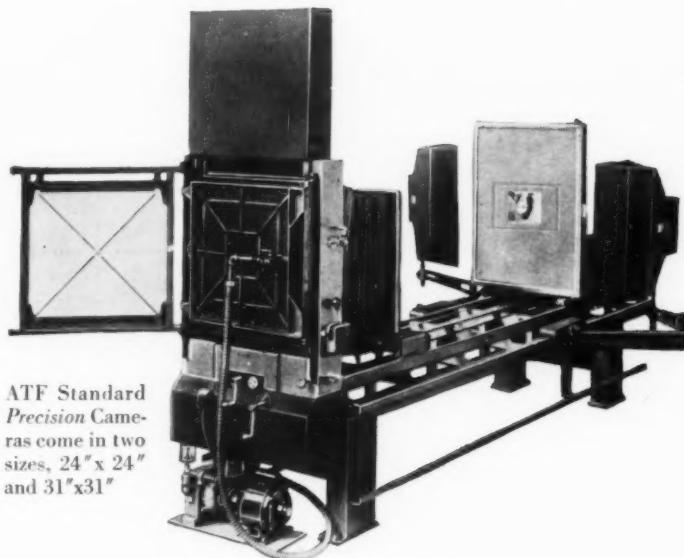


Controls for lensboard and copyboard and ratio focusing tapes are grouped on central panel in darkroom. Graduated inch-scale ground glass permits manual focusing when necessary



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ALL CONTROLS are centralized in the darkroom for turning out better negatives faster. Features of the ATF Standard *Precision* Camera are tilting copyboard for both direct and transparency copy, screen holder that takes both square and circular screens, and calibrated tapes for hair-splitting focus. Precision and rigidity are built-in on the ATF Camera, not just obtained by adjustments, making it vibration-free and versatile in operation.

*Ask your ATF Salesman for complete details*

*ATF also manufactures complete equipment for the lithographer—from sheet-fed offset presses to large web-fed, multicolor presses, and offset platemaking equipment in matching sizes.*

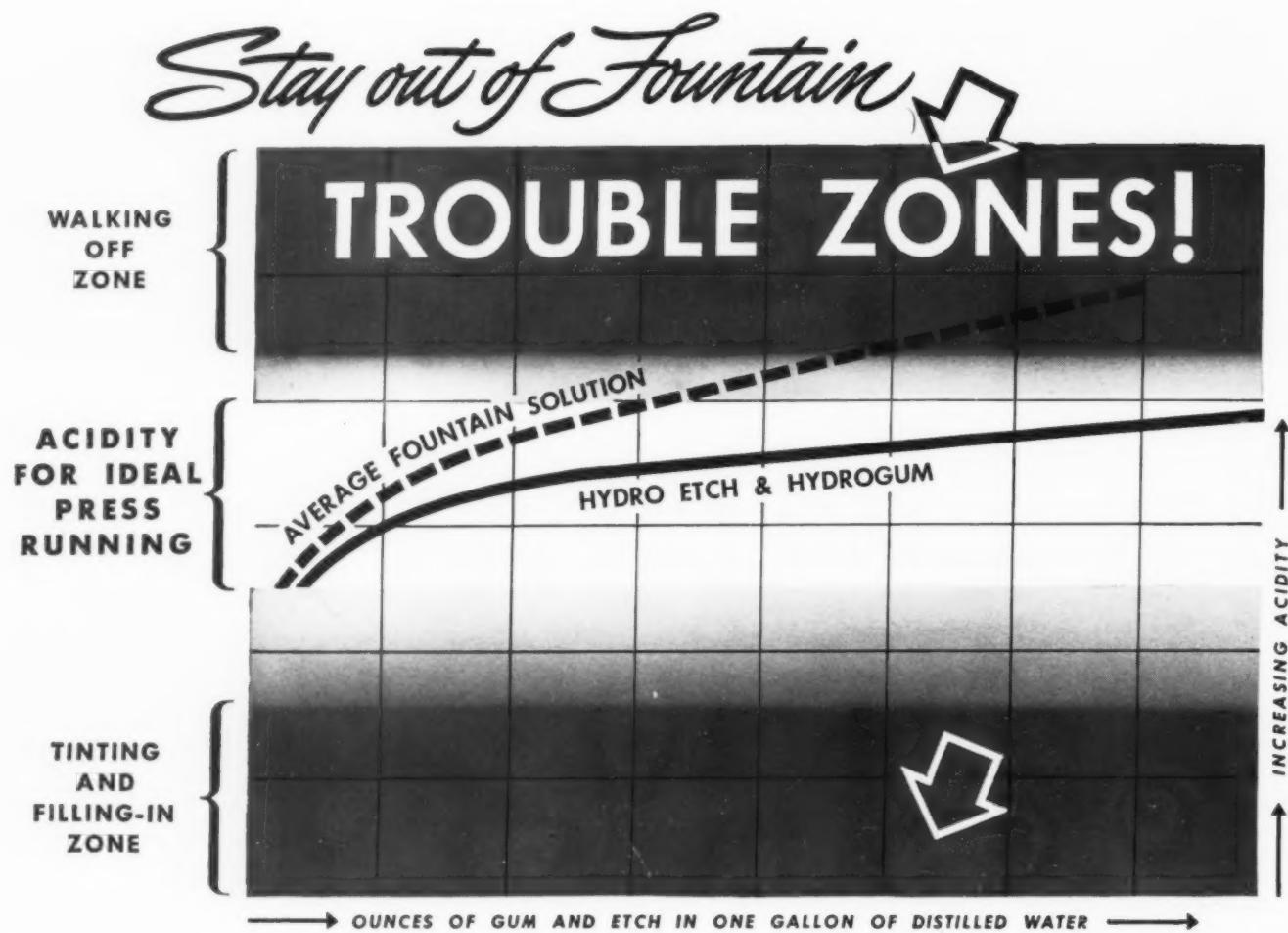
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OFFSET DIVISION

200 Elmora Avenue, Elizabeth 2, New Jersey

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HARRIS-SEYBOLD COMPANY, Atlanta—Dallas  
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McKINLEY LITHO SUPPLY COMPANY, Cincinnati  
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Here's a fountain etch to keep you out of trouble.

Notice how Hydrogum and Hydro Etch cannot reach dangerous acid strength—no matter how much is added to the fountain.

This efficient solution requires a minimum of attention and keeps more clean sheets coming off your presses.

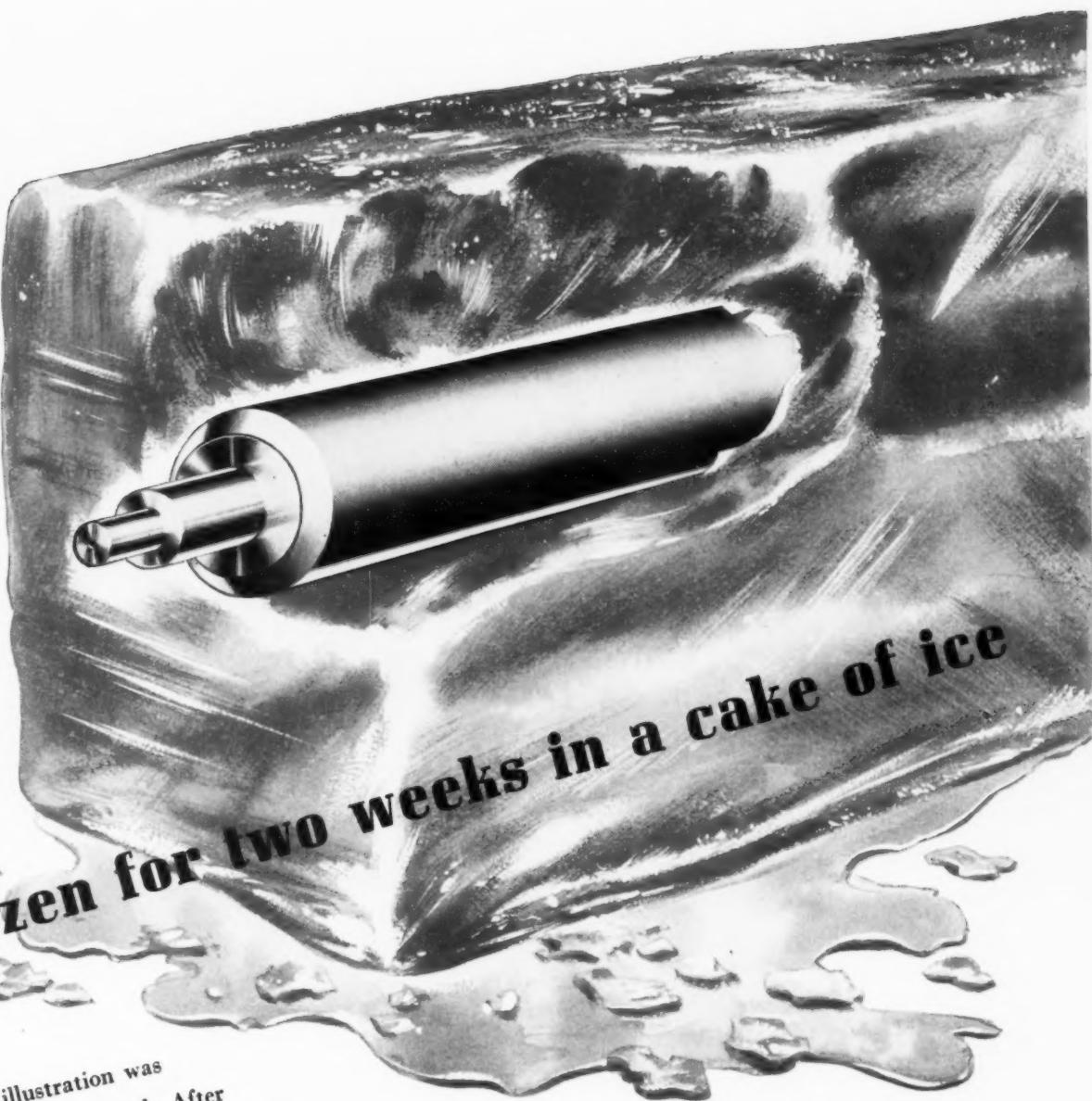
Hydro Etch and Hydrogum in your fountain also give you:

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● This illustration was drawn from a photograph. After two weeks this Dayco Roller was chip-peeled out of the ice and put through all kinds of tests to determine what adverse effects might have resulted. None could be found. ¶ So the roller was put immediately on a high-speed press to see how it would work in actual service. Pressmen reported this Dayco performed just as well as any other Dayco Roller. ¶ Similar tests in steam, inks (all kinds), oils, varnish or dye did not harm the fine printing qualities of Daycos. Hundreds of shops have reported that Dayco Rollers outwear others four to one. So specify Dayco Rollers on your new equipment. Modernize your present metal stock with Dayco. Ask us how easy this can be. Don't delay, write today to:

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**DAYCO ROLLERS BY Dayton Rubber**  
MANUFACTURERS OF THE WORLD'S FINEST PRINTING ROLLERS.  
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The man who starts a business wants it to grow up before he grows old. He likes the strength of oak, but he wants it hurried a little. Printed advertising is basic food for business and is custom made for every individual need, great or small. For more than fifty years, likewise, Champion has been making quality papers to anticipate and improve advertising and printing practices. It's a good line. And a varied one . . . including coated and uncoated for letterpress and offset, business papers, envelope, cover, high finish postcard and package wrap, papeterie and specials. For steady, profitable growth in current sales and those of the future, plan to put every printing job on Champion quality paper.

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## EDITORIALS

CHARLIE runs a 64" offset press in New York, and his present minimum union wage scale is \$72.79 per week. Joe runs a 17 x 22" offset press right next to Charlie's big press, and Joe's scale is \$58.48. Joe hasn't the experience that Charlie has. Charlie has worked his way up to the big press and figures he's worth more. His boss agrees he's worth more because the production on his press far exceeds the production possible on a small press. The boss figures there should be a definite relation between what a man is paid and the amount of work he produces. He knows that when this balance is upset very far in either direction the business can no longer be continued.

Under the union's present proposal in New York, Joe on the 17 x 22" would get his scale raised to equal Charlie's—\$72.79. Then when the scales are equal, both men would get an additional \$10 a week.

If Charlie is human, and all pressmen are, he will soon get a little annoyed that all the men on the little presses are earning just as much as he is, although his job has always been considered much tougher. He'll have a good case for demanding more money for his work. So it will go.

The classification changes all down the line, as proposed by the union, would bring workers in lower skills up to the pay scales of the more experienced, ignoring the factor of production as related to compensation. It appears to be the first step of a two-step method of obtaining increases all along the line. On paper perhaps, wages can be identical for jobs of widely different skills, but practice will dictate increases in the form of premium pay for the more skilled work.

One of the immediate effects of such a classification change might well be the bankruptcy of lithographers operating only small presses. Can a shop which operates only 17 x 22" or 22 x 34" presses stay in business and pay the pressmen the same wages as if they were turning out the production possible on a 64" press?

In addition to the reclassification all down the line, plus a flat \$10 a week increase across the board, the union also asks that employers pay a straight eight per cent of their payroll, labeled "wages", but paid to the union for administration to members as a welfare and pension fund. Thus

a precedent would be set by paying a *royalty on production*, like that paid to the miners' unions for each ton of coal mined.

Such increases in the cost of lithographic production obviously would have to be passed along to the printing buyer who already is abandoning work because of increased prices, and who already is sending work to other places to avoid the high prices necessary in the New York area. And many are of the opinion that New York has not yet felt the full impact of the last labor contracts.

But the seller's market is beginning to wane, and price increases will certainly hasten the day when lithographic volume won't be available at today's peak inflation prices. In the last analysis the buyer is still the one to please and he will buy or not buy as he sees fit. And there will be much lithographic production or little lithographic production in New York, depending on the buyer.

In any exodus of lithography from New York (and such an exodus would not be the first in the graphic arts in that city), the employees suffer the consequences right along with the plant owners. Companies operating in the red because of the tremendously increased cost of getting out the work cannot continue to stay in business. Mergers, combining work with other firms, sale of equipment, bankruptcy—none of these provide jobs or security for employees.

The fight against inflation and the collapse which has invariably followed inflation is everyone's, whether the particular individual happens to work for someone, or whether he has invested time and money to acquire the ownership of a business. Leaders on both sides of the often vague dividing line have agreed that more production is the answer to inflation. Increased production is always a sound basis for increased wages.

The maelstrom of rising living costs in which the working man is caught today presents a strong argument for additional wages to maintain present living standards. But before reclassifying all of these jobs and readjusting the wage structure, why not study the whole system carefully, determine job evaluations factually, and attempt to arrive at wage adjustments which are fair to both sides, to the industry as a whole, and which will not become a Frankenstein monster when the approaching buyers' market arrives?

# pH

## where and how to use it in lithography

By F. R. McCURMB\* W. A. Taylor & Co., Baltimore

**A** KNOWLEDGE of the technical definition of pH is not essential in applying pH control to lithographic practice. The pH scale may be regarded as a scale of active acidity and alkalinity just as the Fahrenheit thermometer scale is a scale of temperature. On the Fahrenheit scale a temperature of 70 degrees is usually regarded as the comfortable mean. Readings below 70 indicate an increase in coldness and the *lower* the reading, the colder it is. Readings above 70 indicate an increase in heat and the *higher* the reading, the hotter it is.

On the pH scale the point of neutrality is pH 7.0; that is, at pH 7.0 a solution is neither acid nor alkaline. Readings *below* 7.0 indicate an increase in active acidity and the lower the pH value, the greater is the active acidity. Readings *above* 7.0 indicate an increase in active alkalinity and the higher the pH, the greater is the active alkalinity.

Everyone familiar with lithographic practice knows that not all acids are the same. A solution of acetic acid is frequently served on our tables in the form of vinegar. On the other hand solutions of acids such as nitric and muriatic are extremely corrosive. A 1 per cent solution of acetic acid has a pH value of 2.8 whereas the same concentration of nitric acid has a pH of less than 1.0. Although the percentage concentrations of these two solutions are the same, the solution of nitric acid is very much more

active. Similar variations occur among alkaline substances. A 1 per cent solution of baking soda has a pH of about 8.0 whereas the same concentration of lye has a pH of over 14. pH denotes the active acidity and alkalinity and does not necessarily depend on the percentage of acid or alkali present.

To summarize the use of testing equipment:

In making a comparison with the color standards, one of the ampoules of distilled water must always be in front of the middle test tube containing the indicator; that is, one of the white arrows on the slide must be directly above the arrow on the base. Two consecutive color standards will then be directly in front of the two tubes of test sample containing no indicator. This arrangement eliminates any effect of color or turbidity in the sample so that, when the proper color standards are in place, the color of the test portion will match one of the color standards or lie between the colors of two consecutive standards.

The principal application of pH in lithography is in control of the fountain solution. The function of the fountain solution, of course, is to keep the plate in optimum condition during the printing operation. To accomplish this the fountain solution must be kept within rather narrow pH limits. When the pH is too high, the non-printing areas of the plate lose resistance to the ink and become greasy. When this occurs the acidity of the etch required to remove the scum may ruin the plate.

When the pH is too low, the grain on the plate may be destroyed and the albumin image may undergo excessive swelling and lose its ink receptive properties, resulting in loss of color value and covering ability. While deep etch plates will stand a lower pH than albumin plates they may be injured if the pH is too low.

When rule of thumb methods are followed in adjusting the fountain solution radical changes frequently occur because there is no accurate way of telling what the true acidity of the fountain solution may be. Samples from presses in operation without pH control may vary in pH from



\* Before the Litho Club of Baltimore, October 21, 1946.

## **Here are the fundamentals of pH, what it is, its effects, what factors affect it and how it may be determined and controlled**

2.0 to above 7.0. Pronounced variations may result in shortening the life of the plate.

Several factors may change the pH of the fountain solution. Contact with the metals of the fountain, the rollers, and the plates tends to exhaust acids in the solution and cause a rise in pH. Materials in the ink and paper may affect the pH of the fountain solution. The water supply is also important since waters vary considerably in different parts of the country. Some water may be ten times as alkaline as others. Consequently the problem of preparing fountain solutions and keeping them at some definite pH may vary with locality. Such effects may be avoided by using distilled water.

The simplest method of measuring pH is by colorimetric compar-

ison. Certain dyes, commonly called pH indicators, give different colors at different pH values. Each indicator covers a definite range of pH values. For example at pH 3.0 the indicator bromphenol blue is yellow, whereas at pH 4.6 it is reddish blue. Between these values the dye has various intermediate shades. Consequently by using solutions of known pH to each of which is added a definite amount of indicator, color standards can be prepared corresponding to the values pH 3.0, 3.2, 3.4, 3.6, 3.8, 4.0, 4.2, 4.4 and 4.6. Consequently, if the same amount of indicator is added to the sample to be tested, the resulting color can be compared with the color standards, and the pH determined.

Indicators are available that cover small intervals over the entire pH scale. For example, bromcresol green

is yellow at pH 3.8 and blue at pH 5.4; chlorphenol red is yellow at pH 5.2 and red at pH 6.8; phenol red is yellow at pH 6.8 and red at pH 8.4, etc.

Color standards such as these can be purchased mounted in plastic slides. A complete outfit called a pH Slide Comparator is simple to operate as shown by the accompanying illustrations.

With regard to the best pH to be maintained in the fountain solution, values close to pH 3.8 for zinc plates and pH 4.6 for aluminum plates have been recommended and in general these values have been found optimum in practice. However, the pH value of the fountain solution is varied somewhat with different inks and papers and the best value should be determined on the job.

In addition to fountain solutions, pH control of the albumin coating mix is useful. Albumin coating solutions to which no ammonia has been added will have pH values near 5.2 to 5.6. Addition of ammonia increases the pH. When this is done only enough ammonia should be added to raise the pH to 7.6 using phenol red.

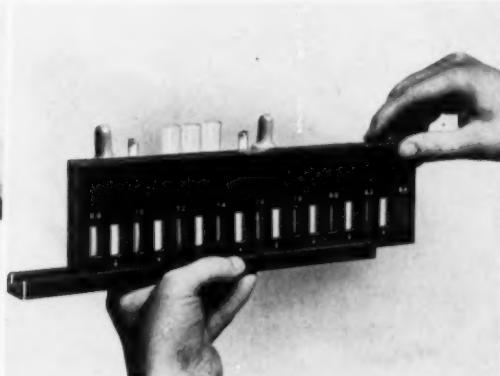
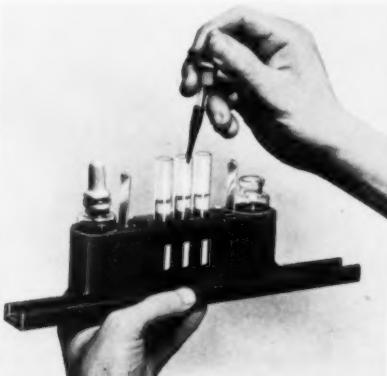
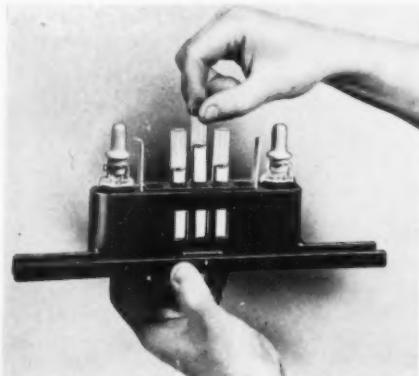
Control of pH cannot supplant the experience and skill of the lithographer but it does substitute measurement of one factor for guesswork. It has been very helpful in tracing press troubles and in maintaining continuous and high quality production.★★

### **DETERMINATIONS IN 3 SIMPLE OPERATIONS**

1. Remove the top from the base. Remove three of the test tubes from the base, fill to the mark (5ml) with the sample to be tested and replace them in the holes back of the three slots in the base.

2. To the middle tube add 0.5ml of indicator solution by means of the pipette and nipple and mix thoroughly.

3. Place the color standard slide on the base and, holding the instrument toward a window or other source of daylight, move it in front of the test samples until a match is obtained. The pH is then read off directly from the values on the slide.



# LABEL

By CHARLES J. FELTEN

Layout Specialist and Typographer  
Kurt H. Volk, Inc., New York

HERCULES—(Black type on yellow stock.) Proportions would be improved by reducing width of label. Six type styles in five lines in box doesn't make for good typography. Stock makes good contrast for type.

BLUE BOOK—(All light blue ink on white stock.) Distinctively different, although I would be tempted to reduce the width a trifle. The irregular contours of the solid blue reverse panels relieve the angularity of the horizontal panel and rule very subtly. While the line across the bottom is very legible, a type with a bit more character would accentuate the balance.

LAKESIDE PRESS — (Subdued green background. White type. Black horizontal rule.) Outstanding example of modern layout, exemplified by division of layout area into pleasing, geometric patterns, use of sans-serif types and relief of angularity by well-placed circular spot. Color choice distinctive.

NEWELL-EMMETT—(White stock, blue rules, lettering in black ink.) Proportion could be improved by reducing height. Eliminating horizontal rule between company name and address and pulling the two lines together would reduce elements at bottom. The blue ink could have more life and contrast.

INTERNATIONAL—(All black ink, white stock, except letters IPI in red.) Effective, functional label of sound formal design that has a modern flavor. Company trade mark has good design qualities and it is well placed. Could be improved by printing either background of trade mark or the reverse band at top in gray of about 50 per cent value, thereby giving added contrast in the upper area.



# DESIGN

## An examination of random labels from the day's mail

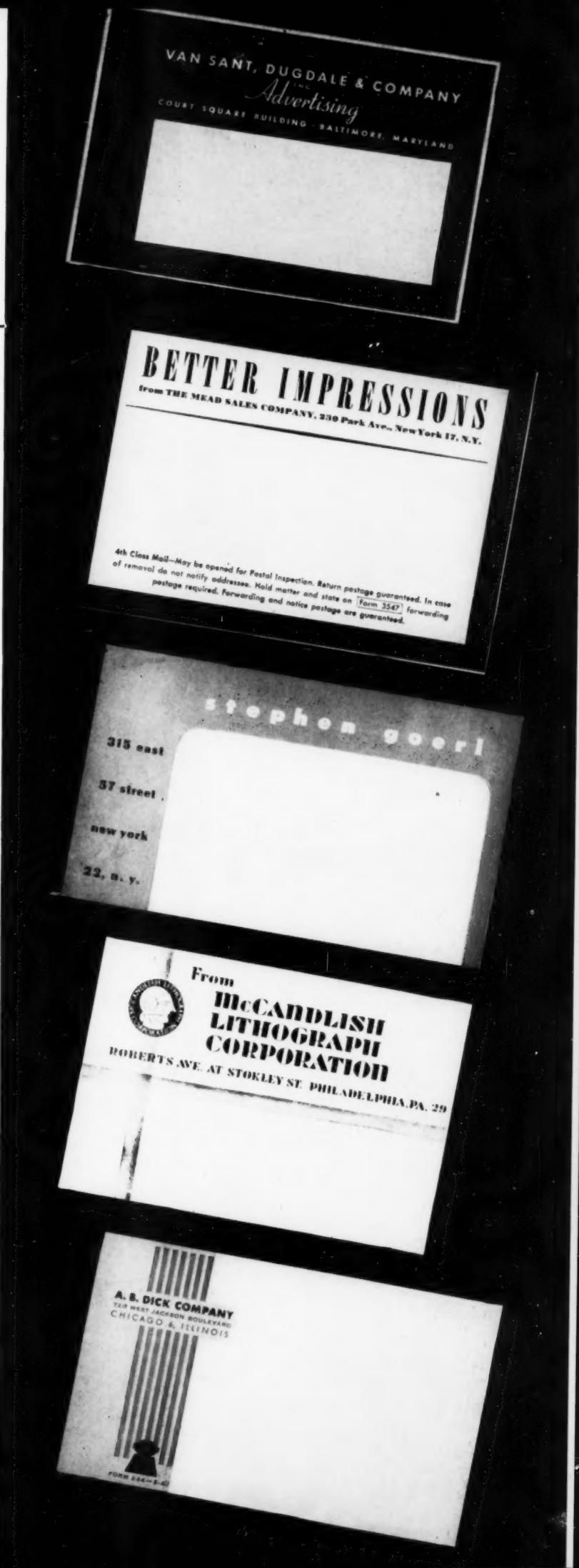
VAN SANT, DUGDALE—(Dark blue ink on light blue stock.) A dignified, conservative, yet fresh looking label. Type is well chosen and has just the right amount of letter spacing. The traditional centered arrangement of type over address panel conveys formality while the shifting of all these elements as a unit off center to the right gives the whole composition a "lift" and touch of individuality. Color choice of stock and ink is harmonious.

BETTER IMPRESSIONS—(White stock, red and black border, black type, red rule.) A straight-forward formally-designed label that tells its story successfully. It has a fresh appearance due to well-balanced color scheme, good choice of modern type and readable, correctly-spaced typography.

STEPHEN GOERL—(White stock, gray reverse with maroon type overprint.) Modernity—which the designer of this label evidently sought—is counterbalanced by the formal centering of the name over the address panel. Reducing width of panel to line up its right vertical line with name could be one way to improve design.

McCANDLISH—(White stock, blue ink.) Functionality should predominate in a label. From the crowded look of the bottom panel it would seem that an extra line or two in a long address couldn't be accommodated on this largest label of the lot reviewed here. (Reduced to fit layout.) That's the only criticism of an otherwise nicely-designed emissary from this well-known litho concern.

A. B. DICK—(White stock, dark green ink.) Simplicity and dignity are exemplified in the design of this label but the typography could be improved. Changing the address line from the stilted Copperplate Gothic to Futura Demi bold seems logical as does the elimination of the form number at bottom.





## TELL ALL TO YOUR INK MAKER and reap higher pressroom efficiency

ONE of the most perplexing and persistent obstacles that presents itself to the ink maker is the insufficient information that usually accompanies an order for ink. It is quite evident after examining many ink orders that in many cases there definitely does not exist between the printer (or lithographer) and the ink maker, the proper relationship and full understanding that is a prerequisite for a satisfactory printed job. Thirty years ago this close relationship between printer and ink maker was not so necessary, since there were few other than the ordinary line of coated and uncoated papers with which to deal, although many of these papers were of excellent quality.

There was no need then for the manufacture of the many specialized inks that are utilized today to print on

**By A. J. PINGARRON\***  
International Printing Ink

such surfaces as glassine, cellophane, glass, metal foil and the many plastic surfaces that have materialized before and during the war and which are finding a great market in the packaging field.

We are all aware of the costs incurred on many jobs due to wasted sheets and loss of press time or for some other condition attributed to faulty ink. Many of these unnecessary expenses can be traced directly to the fact that little information was forthcoming at the outset and difficulties could easily have been avoided if the various phases of the printing job had

\*Based on a recent talk before the Allentown (Pa.) Club of Printing House Craftsmen.

been thoroughly investigated before presenting the ink order. I do not want to place the entire blame on the printer or lithographer, because I find that the ink maker too often shows a reluctance to contact the printer when in doubt as to some point. The ink salesman who contacts the printer, in spite of the fact that he has been trained to gather as much information as possible pertinent to the ink order and to relay it on to the supplying factory, often fails to obtain sufficient data on the job to portray a true picture of it.

In order to supply the information intelligently, I think it necessary that the printer should have some inkling as to what takes place during the formulation of an ink. I feel that this can best be achieved by actually visiting an ink plant, and I think that all

ink users should do so at some time. In a few words, I am going to try to give a fairly good idea of the thoughts, tests, and work that have to do with the filling of an ink order—and why the ink maker is perplexed when the proper information is missing.

I think I can presume that ink users are quite aware of the advance that has been made in the past 10 to 15 years in establishing a common language with which to discuss color. Some ink manufacturers have catalogs in which color is described in three dimensions, namely: hue, value, and chroma—and designated by a group of three numbers. Many ink users have ordered ink by specifying some such number from one of these catalogs and perhaps little realized that they were utilizing the most widely used system of color notation, developed by Albert H. Munsell.

Leading ink manufacturers besides lending themselves to the spreading of a common color language, during the past 10 to 15 years, also have bent every effort to put printing ink on a numerical or scientific basis. Several instruments have been developed to determine and measure the physical properties of ink under conditions simulating various press speeds. In fact, a science has evolved called "rheology" which has to do with the measurement of the physical properties of ink and similar materials.

A great deal of thought has also been given to the study of the relationship of ink to paper as regards printability. The efforts on the part of ink manufacturers, in co-operation with publication printers who are sufficiently large to standardize on paper and press speeds, have made it possible to establish specifications for a variety of inks the tack of which will be suitable for use at certain press speeds. Although common numerical specification of ink for color is in actual use and numerical specifications for physical properties such as tack, gloss, etc., are just around the corner, it is still necessary to tailor-make inks to fit any job. The process by which inks are made to specification is one that requires deep thought, years of

experience and training, a rather extensive knowledge of raw materials, and at least a superficial understanding of the mechanics of presses, the properties of various papers and other substances of varied composition to which printing ink can be applied.

There are four factors that must be considered by the ink maker when the problem is presented. This is true

### **YOUR INK MAKER NEEDS TO KNOW...**

1. The Surface or Stock to which the ink is to be applied.
2. The Method of Application or Printing Process.
3. The End Use of the Printed Product.
4. The Color Specifications.

whether it be as simple as making a job press black for coated paper, or developing a set of four-color, wet process inks for printing at high rotary speed. The four factors which direct the ink makers' course of action are definitely inter-related in such a way that it is impossible to speak or think of any one of them separately, without having to consider at the same time the influence of the other three. They are as follows:

- 1—The surface or the stock to which the ink is to be applied.
- 2—The method of application or printing process.
- 3—The end use of the printed product.
- 4—The color specifications.

Although I have indicated that all four factors are of equal importance, there is one that is the guiding influence to the ink maker's method of attack. An analysis of the various methods of approach to ink problems will show that, for the formulator in the final choice of the ink raw materials, the deciding clue is to be found almost invariably by examination of the end use of the printed subject. For example: In making ink for soap cartons it is the alkali-proofness required in the ink that gives him the clue. In the case of inks for food wrappers it might be lack of objectionable odor, chemical re-

sistance to butter, cheese, lard, bacon or perhaps all of these properties. In the case of box wraps or labels the clue might be sales appeal, which is an attribute of gloss inks. A parallel case would be advertisements in publications. In outdoor signs it may be permanency and resistance to the elements and fumes. In a weekly publication it might be quick-drying. In metal decorating it is flexibility of the ink film or resistance to sterilization and pasteurization.

All of these clues, of course, can be uncovered by the ink maker only if the proper information is available to him. Once he has been given his clue, the ink maker, from his knowledge of raw materials, selects those vehicles and pigments which he thinks will meet the necessary requirements. Working with these chosen varnishes and pigments, the ink maker blends them in the proper ratio to achieve a correct match for the color desired.

It is necessary for him to make proofs in order to determine the closeness of his "match" to the color copy—and these comparisons he must make only after the prints are dry. Any test that the printer has to make such as rub-resistance, scratch-proofness or chemical-resistivity has to be made 72 hours after the print is made, since it takes this period of time for the drying cycle of the vehicle to be completed. Inks that are often rub-proof after 24 hours, on occasion deteriorate badly later, and, therefore, as a safeguard must be tested at the end of a longer period of time. This is also true of ink films that have to withstand other tests involving chemical action from some other source.

Often the ink maker finds that on pulling proofs the stock is not very receptive to the ink and it is necessary to adjust the body so as to improve the printability or to employ some substance which makes the ink and the stock more compatible. In adjusting the body of the ink so as to make it print satisfactorily, the ink maker is controlled by the printing process that is to be employed, as well as by the softness or hardness of the printing surface.

Quite often in the formulating of

an ink that requires some special property directly connected with chemical resistance it is necessary to sacrifice some of the other properties of the ink. For example—it is not always possible to match some shades of blue perfectly in alkali-proof ink, since not all blue pigments are resistant. In such cases it is necessary for the printer and ink maker to get together and set up a new color copy as standard.

In summation—what does the ink maker require from the printer in order to render the best of quality and service?

1—He needs time for new problems since, as previously explained, he might require several days in which to complete the proper tests; reasonable time also on old items unless they are regular stock items, since drying and printing tests have to be made on every batch. Therefore, it is advisable for lithographers and printers to anticipate their ink requirements.

2—The ink maker requires generous samples of stock since as has been seen this has a great influence on formulation. Merely stating, "for coated paper," is inadequate since the color of the stock has an effect on the shade of the ink, particularly so when transparent colors are used. Once the ink is made for a particular stock submitted, that particular stock should be used since the ink was tailor-made for it.

3—Type of press and operating speed are important for the ink maker to know since this will control the consistency of the ink.

4—Information concerning the nature of plates—whether they are rubber or metal; the composition of form—halftone, line cuts, solids, etc.—since not all types of pigments can be used on all types of forms—ought to be passed along to the ink maker. The use of rubber plates has an effect on the formulation of the ink as regards color strength and tack.

5—Color samples. When stock inks are ordered from a catalog, the shade of the color shown therein can be duplicated only when printed on the same kind and color of stock as used

in the catalog—and when the same film thickness is carried. Whenever possible, a wet sample of ink or a print made with oil ink should be submitted. Color swatches made with water color are almost impossible to duplicate exactly. When ink is ordered for a job where more than one color is to be used, rotation of colors and the showing of the color desired when superimposed should be indicated, since it is quite possible to match colors perfectly, singly, and yet not have the same effect produced when one is printed over the other.

6—Any chemical resistance that the ink must have should be indicated and, if available, specifications for the tests that have to be made should be sent to the ink maker.

7—Particulars on any special fabricating or processing requirements that

the ink may have to undergo such as scoring, creasing, etc., should be given. If single color presses are used on multi-color work, the ink maker should be advised as to the interval of time between impressions so that he may avoid the use of ingredients that cause crystallization.

8—Information to the ink maker should be written out and attached to the order. It is particularly necessary that this be done on new items to insure that the correct information reaches the ink maker.

I have tried to point out the fact that time and thought should be given to ordering ink. The ink manufacturer should have all the requirements needed and nothing should be left to his frequently vivid imagination. ★★

## OTS Report Describes German "Aluna" Process

**O**N improved process of Ozalid printing, developed in Germany, is described in a report of the Office of Technical Services, Department of Commerce. For reflex copying, the process is recommended for reproducing opaque originals, pencil drawings, old originals, blue prints, sepia prints, and maps. For projection printing, the process is recommended for linework on ozalid diazo type paper, and for halftone originals on ozalid light-sensitive advertising paper.

The report was prepared by G. A. Hinkel, investigator for OTS' Technical Industrial Intelligence Division. It describes the "Aluna" process as developed by the Kalle company at Wiesbaden.

Basic to both applications of the process is the manufacture of a specially treated paper which costs only one-fifth as much as photographic film, according to the German manufacturer. The raw paper stock is made of wood pulp beaten for about nine hours to obtain transparency. The paper receives two coatings, one of nitrocellulose lacquer, the other of gelatin substratum for holding the photographic emulsions. Different types of emulsions are used for the

two applications of the process. A silver chloride emulsion is used to make "Aluna Kontakt T" paper for reflex copying. Silver bromide with erythrosin is the emulsion for "Aluna Kontakt" paper used in contact and projection printing.

In reflex copying, the print to be reproduced is placed in contact with the emulsion side of the sensitized paper. Light passing through a yellow filter is then directed against the back of the paper instead of the print. The negative is developed, and a positive obtained by direct contact printing. The positive serves as the intermediate original for Ozalid printing.

For projection printing, the Aluna process uses a photographic camera and film for making the negative plate. The positive, however, is printed on Aluna Kontakt paper, and then used as the original for Ozalid printing.

Orders for the report (*The Aluna Process*; PB-32587; photostat, \$1; microfilm, \$1; 7 pages) should be addressed to the Office of Technical Services, Department of Commerce, Washington 25, D. C., and should be accompanied by check or money order payable to the Treasurer of the United States.



## The Growth of Printing on Metal

By C. W. DICKINSON

Mgr., Offset Press Div., R. Hoe & Co., Inc.

Typical containers used in the lubricant, advertising, food, toy, pharmaceutical, tobacco, and bottling industries which are lithographed in color. Increased popularity of offset lithography on metal is expected as the supply of metals improves.

**M**ETAL lithography has become an important step in the production of products in many fields — products which reach the American consumer from the time he arises in the morning (tooth powder containers) until he sets his alarm at night (alarm clock decoration.) These metal products are gaily decorated with color — Color applied by modern methods of offset lithography.

The trend toward metal containers was well under way when the war interrupted its development. Manufacturers had found that attractively decorated metal containers sold their products. In some instances added to the display advantage was a decreased cost of packaging compared with paper packaging. This position has been gained through mass production methods. A further contributing factor in the growing popularity of the metal container is the ease of storing and handling.

In the 10 years prior to the war, numerous manufacturers were drafting designs for new packaging of

their products to take advantage of the merits of metal containers. Most conspicuous of these were the oil and brewing companies. However, wartime metal shortages temporarily interrupted their plans. The present metal situation is better and a steady improvement in the supply of tin and steel sheets is anticipated during the coming months.

Offset lithography on metal has spread from containers to other fields. For example, many toy manufacturers have taken bodies and wheels, as well as other non-mechanical parts, and lithographed them in multi-color on an offset press. This example in the use of offset lithography suggests a vast potential field for this technique. A further expansion in an already well-established lithographic field is expected in metal bottle tops, jar closures and advertising media. Offset printing on metal is also expected to become a factor in other fields where spray methods are now used.

Contrary to what might popularly be supposed, offset metal printing

antedated paper offset by nearly 20 years. These old offset lithographic presses were of the flat-bed type. In 1912, R. Hoe & Co. brought out its first rotary metal decorating press, a single color, hand-fed machine. Tin plate and other metals of various weights in sizes ranging from 14" x 19" to 26" x 34" were fed into the press, decorated, and then automatically carried by conveyor directly into the drying or baking oven.

The next development in the metal lithographing industry came in 1917 with the building of the first two-color metal decorating press. These presses operated at about 2500 sheets per hour.

During this period the fast growing metal decorating industry had been searching for an automatically fed press to further speed up production. Hoe developed such a press in 1936. This automatically-fed press can be stacked with five or six tons of tin plate. The sheets are printed in perfect register, pass automatically to the drying oven and, without fur-

(Continued on Page 75)

# National Association of Litho Clubs

## To Meet in Cincinnati, January 25

THE second annual convention of the National Association of Litho Clubs is scheduled to be held at Hotel Gibson, Cincinnati, Saturday, January 25, and preliminary plans for a full day's program have been announced.

The program opens with registration at 9 a. m. with a business session for accredited delegates from 9:30 to 12 noon. A cocktail party and luncheon, to which ladies and guests are invited, is next on the program with a prominent man scheduled as speaker.

The afternoon session from 2 to 4:30 p. m. will be open to all and will include several speakers and the

annual election of officers. Two hours of free time are provided for before a 6:30 reception which will precede the annual banquet and dance in the evening. The Cincinnati Litho Club and employers of that city are sponsoring the cocktail parties.

The list of speakers is expected to include Wade E. Griswold, executive director, Lithographic Technical Foundation; Walter E. Soderstrom, executive secretary, National Association of Photo-Lithographers; and W. Floyd Maxwell, executive director, Lithographers National Association.

The NALC has announced that there will be no registration fee for

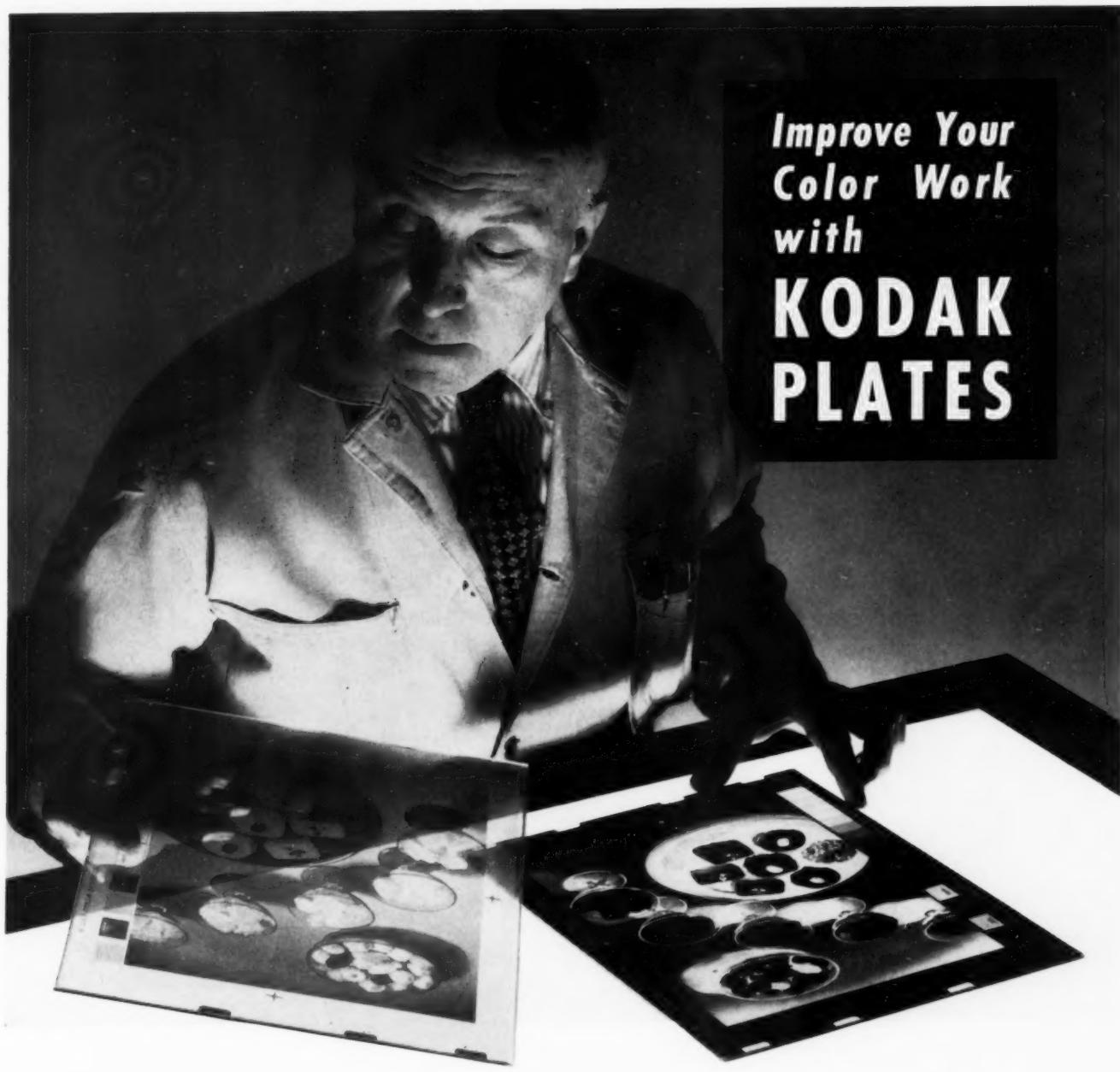
the affair, but that banquet tickets will be \$6.00 each, and the luncheon will be "dutch." Hotel accommodations should be made direct with the hotel. Randall Davis, hotel manager, is handling room reservations for the association.

The association reports that there are now 13 litho clubs in the U. S. with several more being planned. Membership in the NALC is now over 1,000 key men enrolled in member clubs.

The association is distributing to its members transcripts of the technical sessions of the recent conventions of the LNA and the NAPL as part of its expanding program.★★



NALC officers are: front row, left to right—Alfred F. Rossotti, Rossotti Lithographing Co., N. Bergen, N. J., president; William J. Stevens, National Association of Photo-Lithographers, formerly of the Philadelphia club, first vice-president; back row, left to right—Clifford Hebbeler, The Hennegan Co., Cincinnati, second vice-president; Ken O. Bitter, Gamse Lithographing Co., Baltimore, secretary; and Albert Tucker, Sauls Planograph Co., Washington, treasurer.



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tives—there is a particular Kodak plate made specially for each job.

*Kodak Tri-X Panchromatic, Type B, Plates* are particularly recommended for continuous-tone negatives, *Kodak 33 Plates* for continuous-tone positives, and *Kodalith Orthochromatic Plates* for screen negatives. There are many other Kodak plates adapted to particular phases of color work.

*Consult your Kodak technical representative and  
order from your Kodak Graphic Arts dealer.*

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## **Baltimore . . . Schneidereith & Sons . . .**

"The 22x28 All Buckle Baum which we have been using for six years is the most efficient unit in our operation . . . so simple to operate, accurate and giving excellent production."

## **Boston . . . Knapp Brothers . . .**

"The manager of our Printing Department said, 'of all the machines we have, our Baum Folder is the best.' When you get such an enthusiastic statement as this from the man who operates the machine and he labels it 'tops' of all those he uses, nothing more need be said."

## **Brooklyn . . . Artco-Folders . . .**

"The second Baum has arrived and is already operating. The entire plant has been enhanced in every degree with the presence of these two New Baum Automatics. Allow me to thank you once again for your splendid display of spirit and co-operation. Your interest and service has won a 'champion' of your products."

## **Cincinnati . . . Alfred M. May . . .**

"Your good man 'Friday' spent a day at our plant, demonstrating our new Baum Folder which it a 'honey.' He gave the head bindery girl, the cutter, and the copy boy instructions and today all three run the machine like experts. We have been buying Baum Folders ever since you started in business a quarter of a century ago and the last two were bought sight unseen. This new model is a world beater to enable us to give that good service which is expected from the Alfred M. May Company. You are not only building the finest folding machine that money can buy but you have proven yourself not only a 'boon' to the printing industry, but a real friend to the printer."

## **Clarinda, Iowa . . . Artcraft Printers . . .**

"We have run almost a half million sheets since it was installed very recently. I wondered many times what we would have done without it. It would be useless for anyone to offer us double the amount we paid for it, if we could not get another one."

## **Coldwater, Mich. . . . Patterson & Company . . .**

"Your folder is such an efficient perforator, I wonder why you don't advertise it as a perforator with folding attachment . . . even if it is the world's best folding machine."

## **Columbus, Indiana . . . Avery Press . . .**

"The Octuplet is in place and running. How we got along without it will always be one of those unanswered questions. The ease of setting up and the speed with which the machine does an accurate job is nothing short of miraculous. We have always had a Baum Folder in the plant from the time of the old hand feed down to this new Automatic Octuplet."

## **Columbus, Ohio . . . The Heer Printing Co. . . .**

We congratulate you in bringing the "Baum" to our attention. In the mad rush to get printing out on time, it enabled us to get the jobs out sooner than anticipated. If the printers throughout the country become acquainted with these new model Baums, they will find them of tremendous help.

## **Conception, Mo. . . . Defenders of The Faith . . .**

"I think our Baum Folder is the best investment I ever made. If I had to dispose of a machine in my print shop this is the last piece I would part with, and I don't say this merely to make you feel good . . . it's the honest truth."

## **Dallas . . . Dallas Trade Bindery . . .**

Have worked on every make and type and size Folding Machine personally, but the Automatic Baum is the fastest and most all-around Folder ever built. A large part of our work is very hard to handle, jobs that other folders cannot touch. On a million run of sheets 21" long, folded two up and slit I averaged 20,000 an hour. 7000 inches of paper folded per minute.

**Turn the Page** ➔

### DENVER . . . Gates Rubber Co. . . .

The new 25x38 Baum solved our increased production necessities in our bindery. Savings by folding, pasting and trimming almost unbelievable. Perforating and scoring cannot be equalled.

### EVANSVILLE . . . Krieger-Ragsdale Co. . . .

"My superintendent said last night 'It would sure be a pretty sight to see ten of these folders in a row running at full speed.' I don't think there is enough printing business in the world to swamp ten of your New Baum Folders. The second job we put on our New Baum was folded two up and slit giving us 30,000 per hour and we didn't have it wide open because it was a new machine. How can we get that production elsewhere in our plant?"

### GLOUCESTER, MASS. . . . LePage's, Inc. . . .

For 20 years we used the hand-fed Baum before trading it in on your Automatic. This Automatic works like a greased eel and is certainly saving us some real folding money.

### HOLLYWOOD . . . Crew of Good Ship Grace . . .

We are dollars ahead with the Baum . . . we are 100% for your folder. Every time we run off 40,000 sheets we realize it would seem like 40 million, if we didn't have a Baum.

### HOLYOKE . . . Pratt & Austin . . .

"The Baum Folder is a necessary piece of equipment for papeterie plants. Its accuracy enabled us to displace several girls formerly used for hand-folding fine stationery, which operation previous to the arrival of the Baum Folder had been one of the bottlenecks in our plant. We are so pleased with the Baum's performance."

### JACKSONVILLE . . . Drew Company . . .

"Our 25x38 Baum Folder has done everything for us that was claimed for it."

### KANSAS CITY . . . Schiffman Printing Company . . .

"When the new folder was installed we put on a run of 500,000, which we handled superbly at an average speed of 20,000 per hour. Also numerous other jobs including a large onion skin sheet. From our point of view it appears that the Baum Company have achieved perfection in the manufacture of folding machines. Incidentally we uncrated it and set up the machine ourselves without any 'expert' assistance."

### KANSAS CITY . . . Martin Printing Co. . . .

"We have used your folders for a number of years and we do not feel as if we would ever want to use any other make as we are so highly pleased with its performance."

### LAWRENCE, MASS. . . . The Bee Publishing Co. . . .

You delivered the Baum a year before we expected it. We do appreciate the courteous and co-operative way you handled this transaction. It does everything claimed for it, on all the various jobs we've run on it.

### LEXINGTON . . . W. S. Welsh Printing Co. . . .

"Enclosed find check for the sweetest running folder we have ever seen. It is all that you claim for it and well worth the wait."

### LOS ANGELES . . . John D. Roche, Inc. . . .

"The Baum Folder has given us incomparable service, and it is unquestionably the finest folding machine I have encountered in my long experience in the printing trade."

### LOUISVILLE . . . Kentucky Balfour Co. . . .

Certainly it was fortunate you were able to deliver our new Baum last February for otherwise it would have been impossible for us to deliver the Commencement Invitation orders we had taken. We folded over 700,000 of these engraved invitations and we could not have employed enough help to do the work without this folder. The production was completely satisfactory and it would be hard to estimate the saving effected.

### LOUISVILLE . . . Slater and Gilroy . . .

"We think our 25x38 Baum Folder has all others beat a 'city block.'"

### MEMPHIS . . . B. Lowenstein, Inc. . . .

"The Baum Folder we paid \$295.00 for 21 years ago is still operating and our survey shows that we have saved \$12,000 with its use. However, we are going to accept your offer of a \$50.00 allowance and trade it in for your New Model."

### **Milwaukee, Wis. . . . Badger Ruling Co. . . .**

After using the 25x38 Baum on all kinds of jobs and comparing it with any folder ever built, we feel we owe you an honest expression. The constant accuracy, the real saving of folding, pasting and trimming and the gang parallel folding and cutting on accurate bleed forms, etc. has been a real life-saver to us and our customers. A real machine at an honest price.

### **New York City . . . James Gray, Inc. . . .**

As you know, we have been using "Baums" for 25 years. I wouldn't dare put in writing how little these machines cost us. I know one thing, however, we have undoubtedly made fifty times in net profit the amount we invested in them.

### **Nashville . . . Lallyet & Rogers . . .**

"Your New Baum Folder has been in operation for several weeks and it is the first piece of post war equipment we have received. You have done two things—built a darn good machine and delivered the machines out in the field, wheer they are needed. The Folder does all that you represented it would do, and this letter is in appreciation of your solving our bindery problems."

### **New Albany, Indiana . . . The Baker Co. . . .**

"We certainly appreciate the fine service you rendered in sending us new bevel gears by return mail which have put this folder of ours back in perfect shape. We have used it for a matter of at least 25 years and we certainly admire you taking care of trouble of this sort after this long period of use of this worth while Baum Folder."

### **New Haven . . . City Printing Co. . . .**

"With labor shortages and skimpy paper, this Automatic Baum has performed wonders with its speed of operation, folding, pasting, to eliminate costly stitching and above all the simplicity and speed with which it can be swung from four pages to sixteen to eights, etc. I don't mind telling you having operated all types of folders myself that I think the Baum can whip the pants off any machine on the market."

### **Newton, Kansas . . . Herald Book & Printing Co. . . .**

Our operator took to the "Baum" like a duck to water. The Folder has been kept busy every minute . . . always 44 hours every week and sometimes more. We not only do all our own folding on it but do the folding for six other plants. It is our best investment in the plant. The Baum is the answer to all folding problems.

### **New York City . . . Raymond Service, Inc. . . .**

"Enclosed find an order for another Baum Folder, similar to the one recently delivered. Your folder is undoubtedly the greatest piece of mechanism that we have ever had experience with. Were we compelled to give up any essential machinery we would rather sacrifice any three other machines to one of your folders. Its efficiency and ease of operation gives us a genuine thrill and all the men in the shop feel the same way about it."

### **Oshkosh . . . Miles Kimball Company . . .**

"We have made money on everything that we ever bought from Russell Baum and will make more money than ever on this new folder. I would be less than fair, if I didn't express my appreciation of the integrity with which you make your goods, the fairness at which you price them and the extreme co-operation with which you service them."

### **Philadelphia . . . Service Co. . . .**

Enclosed find check for the 17x22 and 25x38 Baum Folders just installed. We now have all the sizes you build, including the 22x28 and the 14x20 that we installed nine years ago and on which we have folded billions of sheets. The first Baum we installed enabled us to increase our business 35% to 40% and the Baums have enabled us to give quality and top service to our customers.

### **Plainville, Conn. . . . Plainville Printing Co. . . .**

"Just completed a 200,000 run on our New Baum Automatic. We are at a loss for words in the praise of this wonderful Automatic Machine. It should be called 'Baum's Atomic Folder' for that is just what it is. Such speed, accuracy, perfect registration we have seen in no other folder. When we operate this little 'money-maker' at 20,000 per hour it seems as though she is running at about 6,000. The astonishing thing about it all is that it is accurate at any speed. Every printer should have one for it is worth its weight in gold."

### **Pleasant Hill, Mo. . . . Colonial Poultry Farms . . .**

We have many types of work but have never found a job that the Baum wouldn't handle. Upkeep and repairs are nil. We can depend on it in any emergency and we wouldn't be without it.

**Turn the Page** 

**Pomona, Calif. . . . Progress Bulletin . . .**

"Your folder does everything claimed for it and has a number of features which we believe are superior to other makes and we have no hesitancy to recommending it to anyone wishing to buy a folding machine."

**Richmond . . . Williams Printing Co. . . .**

"We fold, trim, and perforate at a speed beyond ordinary conception. Forms which formerly took us six and seven hours now we complete in one and one half hours, changing from one size or one character of fold to another. The delivery is really a picture and regardless of the speed it only requires one girl and I must say one girl with very little experience. After the machine is set one girl can operate it."

**Russell, Ky. . . . The Baptist Examiner . . .**

The Baum Sextuplet that we have been using for eleven months has not only paid for itself but paid tremendous dividends above its actual cost. We are pleased, satisfied and happy to be the owner of the All-Buckle Baum.

**Washington, D. C. . . . Frank Shiery Printing Co. . . .**

In three years our Sextuplet has paid for itself many times over. An onion-skin job that no one else in Washington could fold was duck-soup for the Baum. I folded 100,000 sheets in 3½ hours, including setting up time.

**Sacramento . . . Silvius & Schoenbacher (bookbinders) . . .**

"We have three other folding machines but since we installed the 25x38 Baum it is safe to say that the Baum takes 75% of our folding. It must be good to do that when the competing machines are in the same shop."

**San Mateo, Calif. . . . National Federation of Small Business . . .**

"Our membership outnumbers that of any other business or trade association in the entire nation, and the Baum has certainly solved many problems in our mailing department. The much greater speed relieved a very serious bottle-neck. Furthermore, its great ease of operation overcame the problem of requiring an experienced folding machine operator. The Baum Folder certainly solves the problem."

**Spencer, Ind. . . . Farm Bureau Printing Corp. . . .**

All the worrying, tugging, scraping, begging and the like which you put into getting our folder built and delivered has not been in vain. It is all the more appreciated because of all the new equipment we ordered, yours was the first to be installed. We thank you for all the personal interest you took in this one order. It is already proving a most profitable purchase for this plant.

**St. Paul . . . Northern States Envelope . . .**

We actually do get 32,000 folded sheets an hour. It seems unbelievable but we have timed the machine again and again. We make millions of envelopes with the flaps open. We run them through the Baum Automatic and—presto—the flaps are down. We print bank deposit slips that we use the Baum to score and perforate. We fold order blank envelopes including turning down the single thickness flap on the four thicknesses of paper. The Baum does "EVERYthing."

**Washington, D. C. . . . Thomas Adams & Davis . . .**

"Our 25x38 Baum arrived Saturday afternoon. We erected it Sunday and started it at 24 hour per day grind and we can't tell you how elated we are to have this fine machine. The most surprising thing is the sturdiness with which it is built, viz, much heavier than any folder we have ever seen, and this, no doubt, accounts for its smoothness of operation, producing accuracy, productively and economically."

**RUSSELL ERNEST BAUM**

**615 CHESTNUT STREET, PHILADELPHIA, PA.**

# Lithography as Found in Germany

A report on German lithography by the official envoy of our War Department

By PAUL W. DORST

Lithographic Technical Foundation

## PART II

THE following is a report on diazo processes as found at Kalle Und Co., which manufactures Ozalid products and other light-sensitive materials using diazo compounds, etc.

With a single coating containing a light-sensitive diazo compound and a colloid binder, a positive print can be obtained on an Astralon sheet by exposure through either a negative or a positive transparency. A special substratum solution is rubbed over the Astralon sheet (either smooth or matte finish), and the sheet is then coated with the diazo-colloid solution in a whirler. The solvent evaporates in a few minutes and the coating is ready for exposure.

After exposure through a line or halftone negative, the coated sheet is washed under a moderate spray of water to remove the unexposed coating. A special dye solution is then applied for 2 minutes and rinsed off with water. The dye penetrates the light-hardened coating remaining on the sheet and gives a very dark green positive image on a transparent background. This color is very good for visual inspection and also for making diazo prints.

After exposure through a line or halftone positive the coated sheet is developed with water and treated while still moist with a different dye solution. This dye solution does not penetrate the light-hardened colloid, but does slightly penetrate the Astralon sheet where the coating was re-

moved. After the excess dye is rinsed off with water, a diapositive having sharp dense black lines or dots is obtained. This diapositive is similar to those made by Hausleiter's FOS process in that the image lies within the Astralon sheet. The black dye used in this Kalle process was obtained from Hans Eggen, Hanover.

### Plate-Making Processes

For making a litho press plate by exposing through a negative, the zinc or aluminum plate is coated with a solution of diazo compound containing no binder. Zinc must be pretreated, but aluminum is coated directly without pretreatment. (In the demonstration witnessed, an "Alfofoil" anodized aluminum plate was used. These plates were marketed by Klinke and Co., Mettlach-Saar, c/o Villeroy und Boch, Kosaik

Fabrik.) After being dried and exposed, developing ink is applied to the plate, and the image is developed with a special buffer solution containing phosphates and having a pH of 5.0 to 6.0. An Alfofoil plate is then ready for printing. No etch and no gum are applied. The treatment recommended for zinc plates was not described. An Alfofoil plate made in this way was said to be good for 300,000 impressions.

For making a litho press plate by exposure through a positive transparency, a diazo compound containing a colloid binder is used. This coating solution is the same as the one used in making transparencies on Astralon. After being coated, dried, and exposed, the plate is developed under a water spray and dried again. Lacquer is applied, then developing ink, and the light-hardened resist is removed under a mild spray of water by rubbing with a cotton or cellulose wad. A plate made in this way on Alfofoil is ready for the press without further treatment.

### Ozalid Negative Foil

Ozalid negative foil is an acetate sheet treated with a particular diazo compound which gives a continuous-tone red negative image on development after exposure through a continuous-tone positive image. Development is accomplished with plain water.

This hollow, burned-out shell was the home of the offset department of a German plant which specialized in lithography and carton manufacture.





"**You pick the well-groomed  
letter every time, too,**"  
says King Cotton



To be successful in any capacity a girl doesn't have to be beautiful, but she does have to be well-groomed. Isn't the same thing true of your letters? Isn't it silly to "save" a fraction of a penny a letter by using cheap, limp, unattractive stationery?

For people judge your firm by the quality of the paper you use for letters. Your business will be better liked if you use *quality* bond paper made with *new* cotton fibers.

Parsons bond papers, for stationery and documents, are outstanding in feel, in writing and erasing qualities, in strength, durability

and permanence. These are Parsons bond papers:

OLD HAMPDEN BOND, 100% cotton and linen fiber

PARSONS BOND, 100% cotton fiber

L'ENVOI, 100% cotton fiber

LACONIA BOND, 75% cotton fiber

EDGEMONT BOND, 50% cotton fiber

HERITAGE BOND, 25% cotton fiber

Parsons paper for your stationery will reflect the fact and the feel of *quality* in your organization, your business, your office. For cotton is the hallmark of quality in modern business papers.

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44



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NATION'S BUSINESS

UNITED STATES NEWS

FORTUNE

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*...reaching more than  
a million of your  
best prospects*

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Join with us, to  
your profit, and  
your customers'  
satisfaction, in  
promoting:

IT PAYS  
TO PICK  
PARSONS  
PAPERS



MODERN LITHOGRAPHY, December, 1946

An alternative product can be developed by the "dry" method, using ammonia vapor.

An Ozalid print made directly from a pencil drawing on tracing paper has rather weak lines. However, if a print is first made on Ozalid foil (acetate sheet impregnated with a diazo compound), and the foil print is used for making the paper print, the resulting lines are stronger. The reason for this improved result lies entirely in the fact that the gamma of both the paper print and foil print is about two. By using a two-step process, therefore, the gamma of the resulting paper print compared with the pencil drawing is  $2 \times 2$ , or 4. The paper print made directly from the pencil tracing has a gamma of only two. The width of the print lines is essentially the same in both cases.

"Aluna" film has been developed for use in making Ozalid prints from existing prints. This film consists of a silver photographic emulsion coated on a film base or on transparentized paper. Exposures are made by light transmitted through the copy, or by the reflex method. The image is developed out to a negative, and then reversed to a positive image by conventional chemical reversal. The resulting line or halftone positive is then used for making Ozalid prints. "Aluna" film was manufactured by I. G. Farbenindustrie.

A special diazo product for use with aluna positives was made by coating paper with lacquer, and then impregnating the lacquer with a diazo compound. Prints made on this paper have better contrast and somewhat better detail than those made on ordinary Ozalid paper.\*

#### Miscellaneous Notes

The diazo compound used in the processes described above for making transparencies on Astralon and for making litho press plates, costs about twice as much as ammonium bichromate, and is about three times as sensitive to light. The coating solution keeps well. Plates made with it can be stored for six months in the dark at ordinary room temperatures.

\*For more on the "Aluna" process, see page 34.



This collotype press at a Munich lithograph and collotype plant needed overhauling after bombing. Debris and rubble of the plant has been cleared.

The coating is said to be completely insensitive to humidity. That is, the sensitivity to light does not vary with the relative humidity of air with which it is in equilibrium, as in the case of colloids sensitized with bichromate.

Astralon film was said to be simply a "vinyl polymerization product without filler."

The diazo substitute for bichromate is not completely unknown in the U. S., but it has not received serious attention. The following patents have been issued to Kalle:

U. S. 2,100,063—Process for the Production of Tanned pictures. Issued Nov. 27, 1937, to Rudolph Zahn, assigned to Kalle und Co., A-G.

German 596,731—Process for the Preparation of High-Molecular Diazo Compounds. Issued May 9, 1934.

German 581,697—Process for the Production of Light-Sensitive Colloid Layers by Means of Diazo Compounds.

These patents were said to be the basic ones. Applications for others, covering improved methods, have been made, but the patents have not been issued. Records on these applications had been hidden, but probably can be found if desired.

Dr. Maxmillian Schmidt has published descriptive information on diazo materials in the following references:

"Diazotypiepapier und-filme," in E. Stenger, *Fortschritte der Photographie* I, Leipzig 1938, S. 374-395. (One copy of this book is in Schmidt's possession. Others can probably be obtained in bookstores or libraries in Germany.)

"Diazotypie," von Maximilian P. Schmidt, *Fortschritte der Photographie*, Bd. 111, S. 269-290, Akademische Verlagsgesellschaft Becker und Erler Kom-Ges., Leipzig C. I. (One reprint of this article was in Schmidt's possession.)

These articles were scanned quickly. They appear to contain useful general information on the characteristics of these compounds.

Kalle has produced "Ozaphane" movie projection prints in large quantity. These prints were made on cellophane strip impregnated with a diazo compound. They were used for cartoons and also for continuous-tone pictures. The maximum density range was about 2.0-2.2. A roll of 16 mm. propaganda film was examined. It was somewhat inferior to the best continuous-tone silver prints. Its advantages were said to be cheapness and low inflammability. Similar prints have been made in England.

Damage at the Kalle plant was estimated at 40 per cent. The damage occurred principally to warehouses, however, and production equipment was affected only to a slight extent.

**For a SHARP, CLEAR IMAGE**

*...and Precise Register*

**IN LINE OR HALFTONE WORK**

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**DINOGRAPHIC**  
"IT HOLDS SIZE"  
**SAFETY FILM**

REGISTERED U. S. PATENT OFFICE

Coated on a stable, vinyl copolymer  
*Plastic Base*—platten or calendered  
surface finish—to give *the dimensional stability of glass*. Back side of film  
carries antihalation stress coating.

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Kalle und Co. A.G. is a subsidiary of I. G. Farbenindustrie. No work on silver light-sensitive materials has been done at the Kalle plant. This work was assigned to other subsidiaries of I. G.

#### **Halftone Screen Making**

Etched glass halftone screens and gravure screens are manufactured only in six plants in the world, so far as is known. One plant is in the U.S., one in England, three in Germany, and one in Italy. The personnel in all these plants are friendly with each other, and exchange information on techniques, according to Eckerlin, of Herbst und Illig. The ruling machines, however, have been developed individually by the different concerns and vary considerably in design. After a machine is built, about a year's work is required to finish and adjust it so that it will rule uniformly spaced lines, according to Haas.

The general technique of making a halftone screen is essentially the same in all plants, although the actual manufacture is a painstaking art. Polished plate glass is especially selected for minimum flaws and the remaining surface imperfections are ground and polished out. The glass is then ruled by the machine with a diamond point.

The glass is then etched with a hydrofluoric acid solution, the resist removed, and the etched lines filled with an opaque black enamel. An area of the shape and size of the screen desired is selected and cut from the plate. Two such plates are cemented together with the lines at right angles to and in contact with each other. Canada Balsam was used in peacetime as the cementing medium. In war time, however, Herbst und Illig used a substitute which they considered an improvement, while J. C. Haas used a substitute they considered inferior. A groove is then ground around the edge of the plates, and a metal binding is applied to hold the plates together mechanically.

Etched gravure screens have been made by a somewhat different process, details of which are considered secret and were not revealed.

Gravure screens have been made by a photographic process from a master ruled screen. Such screens, however, are said to be inferior to etched screens. Gravure screens are made with two sets of lines at right angles to each other, on one surface of a single glass plate. In an etched screen, the lines remain polished and transparent, while the intervening square areas are etched and filled with black enamel. An excellent strip of such a screen was seen at the J. C. Haas plant.

It must be remembered that screens manufactured in Germany are based on the metric system, and it may be difficult to alter the machines to rule the lines on the basis of the English system. German halftone screens have an exact number of lines per centimeter; those made in the U.S., an exact number of lines per inch. The correspondence may be approximated, but never exact, between metric and English screens. It would be entirely possible to use the screens interchangeably, by altering the stop sizes or screen distance in the process camera, but the modification of calculations would probably be confusing to practical craftsmen. German gravure screens could easily be used interchangeably with English gravure screens, because the actual spacing of the lines does not enter into their practical use.

Irregular screens, some having transparent dots of uniform size on an opaque background, and others having opaque dots on a transparent background, have been developed by Herbst und Illig. Such screens are suitable only for textile printing, however, and are not suitable for photoengraving or offset lithography.

Metzograph halftone screens, having irregularly shaped elements, have been manufactured by Herbst und Illig and by J. C. Haas. This type of screen is now considered obsolete.

#### **Present Production Facilities**

Efha Raster Werk has five ruling machines. Three were in the plant on June 5, 1945, and the other two had been hidden in an outlying village. All were in good condition and could

be put into operation in four or five days. The plant had been slightly damaged by bombing, however. The necessary repairs and cleaning would probably require two weeks work. Personnel was available for operating the machines.

The machines will accommodate glass plates up to 150 x 150 cm. Ruling can be done as fine as 200 lines per centimeter (508 lines per inch). To rule one plate 60x60 cm., 60 lines per centimeter (152.4 lines per inch) requires 24 hours for ruling alone. Production time is uncertain, because imperfect results are sometimes obtained. The uncertainty increases with the size of the plate. Manufacture of 30 screens of assorted sizes requires one to two months.

Herbst und Illig have developed a process for producing a copper binding strip on the finished screen by electroplating. Equipment for performing this operation was in working condition.

Herbst und Illig have four ruling machines. Three of these had been moved to Krofdorf, near Giesen and Wetzlar, and were being operated on June 27, 1945. One of these machines accommodates plates up to 100 cm., one up to 140 cm., and one up to 200 cm. An additional machine, capable of ruling plates up to 200 cm., was located at Frankfurt a/m. It needed repairs that would require about six months to complete.

Stocks of glass and miscellaneous materials sufficient for about 300 screens of assorted sizes, or about one year's operation, were on hand. Finished screens were also on hand, but an inventory had not been made.

The firm of J. C. Haas had four ruling machines, all in good condition but not in operation on June 27, 1945. Three machines accommodate plates up to 100 cm., and one up to about 140 cm. A fifth machine, for plates up to about 190 cm., needed repairs.

Accurate and consistent estimates of production capacity could not be obtained from any of these firms. This uncertainty is understandable, because the manufacturing processes involve uncertainty.

(Continued on Page 75)



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- FLAT LYING
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# ABOUT THE TRADE

## Union in New York Lists New Demands

LOCAL NO. 1, Amalgamated Lithographers of America, in the New York area, at presstime are in a series of meetings with employers, represented by the Metropolitan Lithographers Association, on union demands for reclassifying many jobs into higher wage brackets, a flat \$10 a week increase across the board and the paying by employers of eight per cent of the payroll for a welfare and pension fund. Under the reclassification the scales for all offset pressmen on presses up to 64" would be the same as the 64" scales, all present classes of artists would receive the same scale wages as dot etchers, and other classifications would be altered similarly in other depart-

ments of the lithographic plant.

The eight percent of payroll is termed "wages" by the union, but would be paid to the union for administration. This proposal was made by the union after the employers took the position that the original proposal of five percent of the payroll for a welfare fund was not properly opened for discussion at this time.

The present contract provides for an opening now for wages and classifications, but not for hours or other matters.

Group labor contracts are also expiring at the end of this year in Chicago, Boston and Cleveland, and several other cities.

## To Hold Display Forum

A forum on display production with emphasis on mounting, varnishing, die cutting, and finishing, is planned for the meeting of Wednesday, January 8 of the Young Lithographers Association, Sidney P. Voice, YLA president, announced. A number of speakers are to be present, each one summarizing the developments of recent years in his particular field. The meeting will be held in the Building Trades Club, 2 Park Avenue.

At the association's meeting December 11, L. Clayton Hill, works manager of Eagle Pencil Co., was to address the group. Mr. Hill has spent many years in the engineering and manufacturing phases of management, and lectures at the Works Simplification Conference at Lake Placid, N.Y., every summer.

At the YLA's November meeting nearly 65 attended and heard Richard

Hansen, attorney connected with a leading chemical company, discuss labor relations. He urged that employers give employees more facts of the business, to keep them informed, and to get closer to the problems of employees.

## Metal Group to Meet

The next meeting of the National Metal Decorators Association will be held in New York in April, 1947, Winslow H. Parker, Parker Metal Decorating Co., Baltimore, association president, announced. The hotel where the meeting will be held and definite dates will be announced later, he said.

## Thomas Heads Label Mfrs.

Joseph J. Thomas, president of United States Printing & Lithograph Co., Cincinnati, was re-elected president of the Label Manufacturers National Association at that group's meeting at the Edgewater Beach Ho-

tel, Chicago, November 6-8. The meeting marked the 30th anniversary of the association which was founded in Chicago in 1916. Ted Fleming, Fleming-Potter Co., Peoria, Ill., was elected vice president; and Henry Doeller, Jr., Simpson & Doeller Co., Baltimore, was re-elected treasurer. Charles R. Cosby continues as executive secretary.

Also elected directors for three year terms were: J. M. Davidson, Piedmont Label Co., Bedford, Virginia; George W. Hall, Western Lithograph Co., Los Angeles; and Alfred Weinsheimer, Magill-Weinsheimer Co., Chicago.

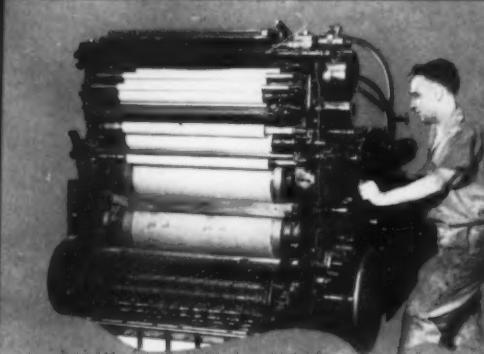
## 10 Cent Raise in Chicago

The Chicago Lithographers Association admitted six new litho companies to membership at its November meeting. Starting five years ago with 25 members, the organization now numbers sixty closed shop plants. In recognition of rising living costs, the association voluntarily placed in effect a pay raise of 10 cents an hour all down the line, effective last Oct. 1. Meanwhile negotiations for a new contract with Chicago Local No. 4, A. L. A., are expected to get under way Jan. 1.

## McCandlish Film Premiere

The premiere of the motion picture "The Creation and Production of Advertising Displays" was presented by the McCandlish Lithograph Corp., of Philadelphia to a large number of advertising people at the Lexington Hotel in New York December 10. The program which was presented both in the afternoon and evening, also included a review showing of the McCandlish picture "The Making of a 24 Sheet Poster" which has been shown for several years all over the nation.

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## **U. S. Envelope Honors Employees' War Record**

**A**s a commemorative record for its men and women who served in World War II, the United States Envelope Company of Springfield, Mass., has just published a 116 page,  $8\frac{1}{2} \times 11$ , book. Entitled "These Served," it was produced for distribution to 412 returned veterans, and the survivors of 18 who lost their lives in the war. In addition copies were given to all of the rest of the company's 3,300 employees. The culmination of many months' work on the part of the company and its advertising department, it contains veterans' war records and photographs, reproductions of 19 charcoal drawings done especially for the book by the portrait artist, Bettina Steinke, an illustrated chronology of World War II and a brief section describing the part played by the company on the home front.

In compiling all the information the company corresponded with veterans, their families or friends, seeking biographical information. Veterans were also asked to furnish snapshots or photographs of themselves in uniform. Unfortunately a great majority of the pictures, having been taken under field conditions, or carried to all parts of the world, were too indistinct, and in some cases, too small for good reproduction. Thus it was necessary to study carefully each of the 350 pictures received in order to determine the amount of retouching necessary for over-all uniformity

### **Ink Firm Moves**

Glenn-Killian Color Co., formerly located in Berks Street, Philadelphia, recently moved to new quarters at 4208 Main Street, that city, James T. Killian, president, announced. The company manufactures letterpress and lithographic ink.

### **Norwegian in U. S.**

Torgen Tandberg, of Grondahl & Son Boktrykker, Oslo, Norway, lithographers, arrived in the U. S. during September and expects to spend a year studying U. S. lithographic methods.

before they could be scaled and copied for final reproduction.

The type face selected for "These Served" was picked primarily to match the timber of the book. The Machine Composition Company, of Boston, Mass., set the main body of the text in Garamond 248 with headings in Garamond Bold 548. Titles and sub-titles were hand-set in Legend by Kurt H. Volk, New York, N. Y. General Offset Printing Company, of Springfield, Mass., printed the book on a Harris press in approximately 100 hours. One four-page and seven 16-page signatures were printed from deep-etch plates by the photo-offset lithography process.

"These Served" was produced under the direction of Wm. B. Remington, Inc., of Springfield, Mass.

### **New Boston Firm**

Offset Plate & Negative Co. has been organized at 32 Oliver St., Boston, by Walter L. Dunn and Arnold R. Blazer. The company will make negatives and plates from Multilith size up to  $22 \times 29$ " in halftone and line. Both Mr. Dunn and Mr. Blazer have been in lithographic work several years, the latter having been in charge of a reproduction unit in the army.

### **Printing Week in Boston**

January 13-18 is to be Printing Week in Boston, and the week is to get underway with a joint meeting, Monday evening the opening day, at the Copley Plaza, of all graphic arts groups in the city. The Advertising Club plans a special printing meeting at its Tuesday luncheon, and graphic arts exhibits will be shown during the week. The Craftsmen's Club is the sponsor.

### **Paper Companies Merge**

The business merger of Carter, Rice and Company, Corp., Boston, with Bulkley, Dunton and Company, Inc., New York, and Springfield, Mass., was announced November 29. Hubert L. Carter, former principal

owner, who has been associated with the 75-year-old Carter, Rice company for 48 years, is retiring from the business and has transferred his entire interest to the consolidated companies.

The joining of the two companies' business interests will result in considerably broadened service to the trade and increase the territorial coverage in New England, the announcement stated, with no change in the business policies and principles.

### **New Combination Shop**

A letterpress-lithography combination plant was organized recently at 285 Franklin St., Boston. The name is Creative Printing & Offset Co., and the owners are Maurice I. Blacker and Samuel D. Waxman. A creative service for printers and lithographers, and other trade services to the graphic arts will be included among the company's activities.

### **New Eng. Firm Adds Press**

New England Offset Co., Springfield, Mass., recently added a  $22 \times 29$ " offset press, a 24" camera, plate-making equipment and other equipment to its plant, and another offset press is on order, Albert J. Schulze, announced.

### **New Hartford Company**

Printcraft, Inc., has recently been organized at 618 Capital Ave., Hartford, Conn. One of the principals is Simon Rosenthal, formerly of Fox Press, and a member of the Connecticut Valley Litho Club.

### **Joins Empire Ink**

Charles Perrone, formerly with H. D. Roosen Co., Brooklyn, has joined Empire Superfine Ink Co., New York where he will be in charge of sales and technical service. He was formerly with J. H. & G. B. Siebold, Inc. for 17 years.

### **New Phila. Company**

Trio Litho, a new company, has been organized at 1323 Vine Street, Philadelphia, to make negatives and plates for the trade. Principals in the company are Carl Becker, Edwin W. Jorden and William Gormley, Jr.

## E pluribus unum

One created from many! An idea, born of natural law, translated by the forefathers of this nation into a living concrete way of life. Freedom of the press. Freedom of ideas. Freedom to accomplish the impossible by hitherto impossible means. Freedom to make the luxuries of the classes the staples of the masses.

Thus was created a nation of states and regions, populated by citizens of every racial strain under the sun whose most valuable asset is participation in the greatest wealth-creating industrial and commercial system ever existing under any government.

This is drama. This is a success story. This is Aladdin's lamp at work. This is the magic carpet. This is the land where dreams come true.

See it dramatized in pictures! See it marching in words! See it in the current edition of "Westvaco Inspirations for Printers No. 162."

All who would know the value of their place in the sun will find many hints reflected in this issue. Advertising the nation that is the United States of America! Advertising the meaning of "E Pluribus Unum" is nothing more nor less than the focal point of all product and service advertising. The greatest piece of copy ever written and printed on paper is the Constitution of the U.S.A. That Constitution is reflected in every business, big and little, from the little grocer to the merchant prince, or from a gas station on Main Street to the entire oil industry. See the work of consolidating, expanding and dramatizing the U.S.A. as it is done through the power of the printing press. See the labor that would have appalled Hercules, done in paper mills. Be inspired by the fact that no matter what your business is, or where it is, or when it started, it is a part of "E Pluribus Unum", expandable by the considered use of good printing on good paper.

Your copy of this issue will be identified by its cover, "Ice House", by Waldo Peirce, here depicted. Write or telephone your nearest Westvaco distributor at any one of the four company addresses here listed. There is a thrill in store for you, a thrill even in making ice one of the warmest tales of advertising success. Ask for the "E Pluribus Unum Issue," No. 162.

### The cover artist

Recent exhibits demonstrate Waldo Peirce's development on the road to the achievement of that vital and personal style which has made him one of the foremost contemporary American painters. One critic has said that Peirce combines the emotional gusto of a Van Gogh and the sensuous realism of a Renoir. His work is represented in the Metropolitan Museum of Art, the Carnegie Institute, the Pennsylvania Academy of Fine Arts, The Whitney Museum, and many other art centres throughout the country.

**West Virginia Pulp and Paper Company**



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35 E. Wacker Drive, Chicago 1  
Public Ledger Building, Philadelphia 6  
503 Market Street, San Francisco 5



Ice House, by Waldo Peirce  
From the painting in  
Midtown Galleries, New York

# Westvaco

Inspirations for Printers 162

## **Wage Percentage of Total Costs Rises: PIA**

**T**HE 23rd annual ratio study of the printing industry, entitled "Ratios for Printing Management for the Year 1945," were released November 29 by Printing Industry of America, Inc. The study covers the year 1945 and is based on an analysis of 495 operating statements of printing plants which that year had a total sales volume of \$157,292,232. These plants are located in 147 cities in 40 different states.

Dennis A. Sweeney, chairman of PIA's ratio study committee, summed up the report as follows: "The 1945 operating ratios as well as the balance sheet ratios reveal important trends in the printing industry.

"Printing is traditionally an industry in which factory wages constitute a large proportion of total production costs. Since the start of the war the percentage of wages in total printing costs has risen further. This, coupled with the relative increase in cost of materials purchased by printers, forced the printing industry throughout the war years to reduce its administrative and selling expenses and to cut down factory expenses other than wages in order to offset wage and price increases.

"The 1944 ratio study had shown a sharp drop in administrative and selling expense ratios below 1939. However, in 1945 this trend was halted. Largely due to the fact that office payrolls also were beginning to rise, administrative and selling expense ratios showed an increase over 1944. Even the greatest ingenuity in holding down fixed factory expenses and in effecting savings in the purchase of materials proved insufficient in 1945 to offset additional increases in wages and salaries. As a result, the ratio of net profits to sales before taxes for the reporting plants was lower in 1945 than it had been in 1944.

"For 1945 the typical printing production cost dollar showed the following picture: Factory costs of goods sold amounted to 81.57 per cent of total costs. Factory wages accounted for 31.72 per cent of total

costs and materials used for 38.96 per cent. Paper alone took more than 21 per cent of total manufacturing costs in the reporting plants.

"Administrative expenses added 10.99 per cent to printing costs, and selling expenses accounted for the remaining 7.43 per cent of the printing cost dollar in 1945. If office and sales payrolls are added to factory wages, the combined payroll in printing establishments constituted well over 40 per cent of total expenses in 1945.

"The 1945 printing balance sheet ratio analysis shows a further shift from fixed to current assets. This trend has been in evidence since the start of the war and reflects the halt in production of printing equipment during the war. In 1939 fixed and current assets in printing plants were about equally divided. Six years of continued depreciation but inability to replace worn equipment threw this relationship considerably out of kilter. The printing industry now is in a sufficiently liquid position to finance needed equipment purchases but finds itself faced with sharply increased prices for such equipment. This, over the years to come, will add considerably to depreciation charges as part of fixed factory expenses, thus probably reversing the downturn in this expense item that had been in evidence between 1939 and 1945.

"Despite the relative increase in its liquid assets, the printing industry as a whole reduced its inventories in 1945. The percentage share of inventories to total assets in 1945 showed a marked decline from 1944, reflecting at least partly the difficulty of obtaining sufficient paper supplies for its requirements."

### **Buys Mart Press**

Harry S. Vested, formerly with R. R. Donnelley & Sons Co., has purchased the Mart Printing Co., 356 W. Huron St., Chicago, and will operate the concern hereafter under the new name, The Mart Press. Other changes under the new ownership include reorganization from a corporation to the proprietorship form of operation;

a 25 per cent expansion in floor space to be used ultimately for additional equipment; and the elimination, as soon as possible, of the black and white planographed mail order form business promoted by the former management.

High class color lithography will be stressed hereafter.

### **Chicago Ink Firms Expand**

Reflecting the growing demand for ink, created by the correspondingly growing demand for printed materials, a notable expansion of production facilities is under way among Chicago printing ink manufacturers.

Acme Printing Ink Co., expected to be settled by Christmas in its new half-million dollar plant at 1421 Carroll Ave., which has been under construction since early spring. Frederick H. Levey Co., is rushing construction on a 2-story addition to its plant at 4250 W. 42nd Place and hopes to start operations in this additional space early in 1947.

Sinclair & Valentine Co., has been pushing construction on a complete new plant in Chicago's southwestern environs and also hoped to be able to assume occupancy shortly.

Sleight Metallic Ink Co., of Illinois, announced the purchase of a modern, 3-story building at 900 S. Clinton St., early in November and planned to move within thirty days. Sigmund Ullman div., of Sun Chemical Corp., has also been in possession since last summer of larger quarters at 2820 W. Grand Ave.

### **Forms Design Service**

A design, art and production service for books and general lithography has been formed by Freda Browne, 208 E. 28 St., New York. She was formerly in book and advertising work with Visualart.

### **R. I. Firm Incorporates**

Narragansett Litho. Inc., was incorporated November 12 by William M. Mackenzie, Ethel R. Johnson and Andrew C. Bain, at Pawtucket, R. I.

## Lithographers Exhibit at Stationers Show

INAUGURATION of a 5 cent air mail rate commanded considerable interest at the National Stationers Association in Chicago recently. The lowered rate, as pointed out in an address by Charles Sinigalli, manager of the R. P. Andrews Paper Co., Washington, D. C., offers the opportunity to sell a large volume of air mail paper in whose production lithographers can have a leading part.

Among the 180 exhibitors in the convention trade show was the Stanley Wessel Co., Chicago lithographers, who during the war developed a large business in V-Mail. Shown to the stationers was the company's new line of air mail stationery, designed in anticipation of the expansion of domestic air mail business.

Gummed labels for a hundred purposes, ranging from industrial shipping rooms to the home canner's kitchen were shown by Eureka Specialty Printing Co., Scranton, Pa., from their line of "Book-Pak" labels. The bulk of their products are printed by offset, J. W. Reid, general sales manager, stated. When two new two-color Harris presses, on order for a long time, are delivered, he added, the lithographed output will be greatly expanded.

Columbian Art Works, Inc., Milwaukee, Wis., lithographers, showed the stationers a line of "Success" desk calendars, newly designed with walnut finish plastic bases. Decorating the booth was an enlarged picture of Columbian's new factory now under construction in Milwaukee. The building, now about 50 per cent complete, is expected to be ready for occupancy early in 1947. Harry L. Short, vice president and sales manager, said. The new one-story daylight structure will have 50,000 sq. ft. of floor space and a portion of the two and one-half acre site on which it stands has been reserved for future expansion.

Maps by offset were displayed by Rand McNally & Co., Chicago, with Harmon Woodworth, advertising manager, in charge. State maps, road atlases, six varieties of world atlases,

and globes of all sizes were shown. "Histo-Maps," a novelty item, tracing the parallel development of history, science and religion, a new sales control map for recording distribution data, and other business needs, were among other featured items shown in the booth.

Philip Hano Co., Inc., Holyoke, Mass., manufacturers of manifold business forms, showed two new lithographed "Snap - A - Part" one-time carbon forms for standard business purposes. Also shown were new bills of lading forms for rail and truck freight and a variety of continuous lithographed forms which the company has been making for 59 years.

### Cuneo Man to Germany

The manufacture of printing presses in Germany will be studied for the benefit of the American typographical industry by William M. Stocker, consultant for the Cuneo Press, New York City. John C. Green, Director, Office of Technical Services, Department of Commerce, announced today. Mr. Stocker recently left for Germany.

### Seek GPO Paper Supply

A voluntary percentage-of-production program for supplying the government's paper requirements was recommended by the Groundwood, Book and Writing Paper Industry Advisory Committee at a recent meeting, the Civilian Production Administration has announced. Meeting with CPA to tackle the problem of alleviating a shortage so acute that some government printing presses have been paper-starved into idleness, representatives of the paper industry proposed that every mill accept its share of government orders.

Although some mills have been selling as much as one-tenth of their monthly production to government agencies, other manufacturers have been supplying little or no paper for government use, it was claimed. Total monthly paper orders of all government agencies are approximately 9,000 tons.

## Milprint Buys Paper Mill

Following the current trend in many industries to acquire possession of sources of essential supplies, Milprint, Inc., Milwaukee, has purchased the Nicolet Paper Corp., De Pere, Wis., and will operate the plant as a wholly-owned corporation. M. T. Heller, president of Milprint, will be president of Nicolet and William Miller, vice-president of Milprint, will be vice-president and a director of Nicolet. R. N. Evans, Milprint's treasurer, becomes treasurer also of Nicolet and E. J. Dempsey, a director of Milprint, will continue as secretary and director of Nicolet, according to announcements from the Milwaukee concern.

### Ink Supplies Still Low

The end of the war has not solved the ink maker's problem of obtaining adequate supplies of raw materials with which to formulate inks for the printing industry, and in many instances, according to C. A. Rietz, assistant manager of International Printing Ink's Chicago factory, the situation today is even worse than that which existed during the war period. Discussing present day aspects of the supply problem before the Topeka (Kans.) Club of Printing House Craftsmen on November 12 and again next day at the meeting of the Wichita, Kans., Craftsmen, Mr. Rietz cited numerous reasons for current ink shortages.

### Tin Controls Off

Orders M-43 and M-81 regulating the use of tin and tinplate were revoked during November by the Civilian Production Administration. Order M-43 prohibited the use of tin in certain products; and restricted its use in specified products, restricted deliveries and allocated pig tin. Order M-81 limited the type of cans made of tinplate, terneplate or black-plate.

### Addresses Craftsmen

Anthony Capello, general manager, Joseph Hoover & Sons Co., Philadelphia, was the speaker at the November meeting of the Philadelphia Craftsmen.

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# **We've Got What It Takes**

## **TO GRAIN PLATES**

AGSCO GRAINING GRIT

SILICON CARBIDE

WAUSAU FLINT QUARTZ

ALUMINUM OXIDE

SILICA GRAINING SAND

STEEL GRAINING MARBLES

TSP CLEANER

GLASS GRAINING MARBLES

GRAINING ORE

PUMICE

— AND —

AGSCO-TUFF-STUFF GRAINING MACHINE LINING

**Now More Convenient  
than ever before!**

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**2 PLANTS — 2 STOCKS  
TO SERVE YOU**  
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189-203 E. SEVENTH ST., PATERSON 4, N. J.

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## Electric Boat Co. To Build Willard Presses



Stuart E. Arnett

THE formation of a Printing Machinery Division, which will manufacture the Willard offset press, has been announced by the Electric Boat Co., Groton, Conn. Stuart E. Arnett, formerly sales manager of the New York metropolitan area for the Harris-Seybold Co., has joined the new division as sales manager, and Harold Gegenheimer, formerly chief engineer of the press section and plant manager of the Rutherford Machinery Division of Sun Chemical Co. is supervising engineer of Electric Boat's new division.

The first product which will be produced will be a 22 x 34" single color Willard press, and complete details are to be announced soon, according to O. P. Robinson, vice president and general manager.

The Electric Boat Co. is said to be the world's largest and oldest producer of submarines and a peace-time manufacturer of a number of precision-built products. Other divisions of the company include the Elco Division, builder of PT boats and power yachts; Electric Dynamic Division, manufacturer of special and standard electric motors and generators; Commercial Body Division, builders of Armorlite truck bodies; and the Structural Steel Division. "The combination of our own motor plant plus our own foundries and machine shops, well equipped and manned with a highly skilled force, assures early and uninterrupted de-



Harold Gegenheimer

liveries of our printing machinery," Mr. Robinson said.

The sales office of the Printing Machinery Division is at 33 Pine Street, New York, and the plant is at Groton, Conn.

Mr. Arnett, the new sales manager, has been associated with the graphic arts since starting as an errand boy during his school days for a Detroit printer. He has since worked as a pressman, compositor, estimator, cost accountant and salesman of printing, lithography and graphic arts equipment. He received his college training at the Detroit Institute of Technology and Fenn College, Cleveland. During the war he was an aviation engineering officer in the U. S. Marine Corps.

Mr. Gegenheimer, the new supervising engineer, prior to his connection with Rutherford Machinery, was associated with his father, William Gegenheimer, in the development of the Willard offset press. He was also with American Type Founders for about five years as a design engineer on offset press equipment. He is a graduate of Georgia Tech in 1933 with a degree in mechanical engineering.

Lee B. and Bernard S. Rosenstadt, Ardlee Service, Inc., New York, were also prominent in the development of the Willard press.

### Kipe Displays Work

An exhibit of color lithography, and a cocktail party, was held by

Kipe Offset Process Co. at Hotel Roosevelt, New York, November 7, which was attended by the company's customers and friends. Included in the panels of lithographed products were the reproductions of four water color paintings by Gordon Grant, as well as a large number of a variety of other jobs produced by Kipe. Host at the affair was Horace S. Kipe, company president. He told *Modern Lithography* that he expects about a 60 per cent increase in volume next year, and that a two-color Harris 50 x 69" press is to be installed immediately as part of an expansion program. Charles Simunek, vice president and Irma Nymark, secretary-treasurer, and other members of the firm's staff were present.

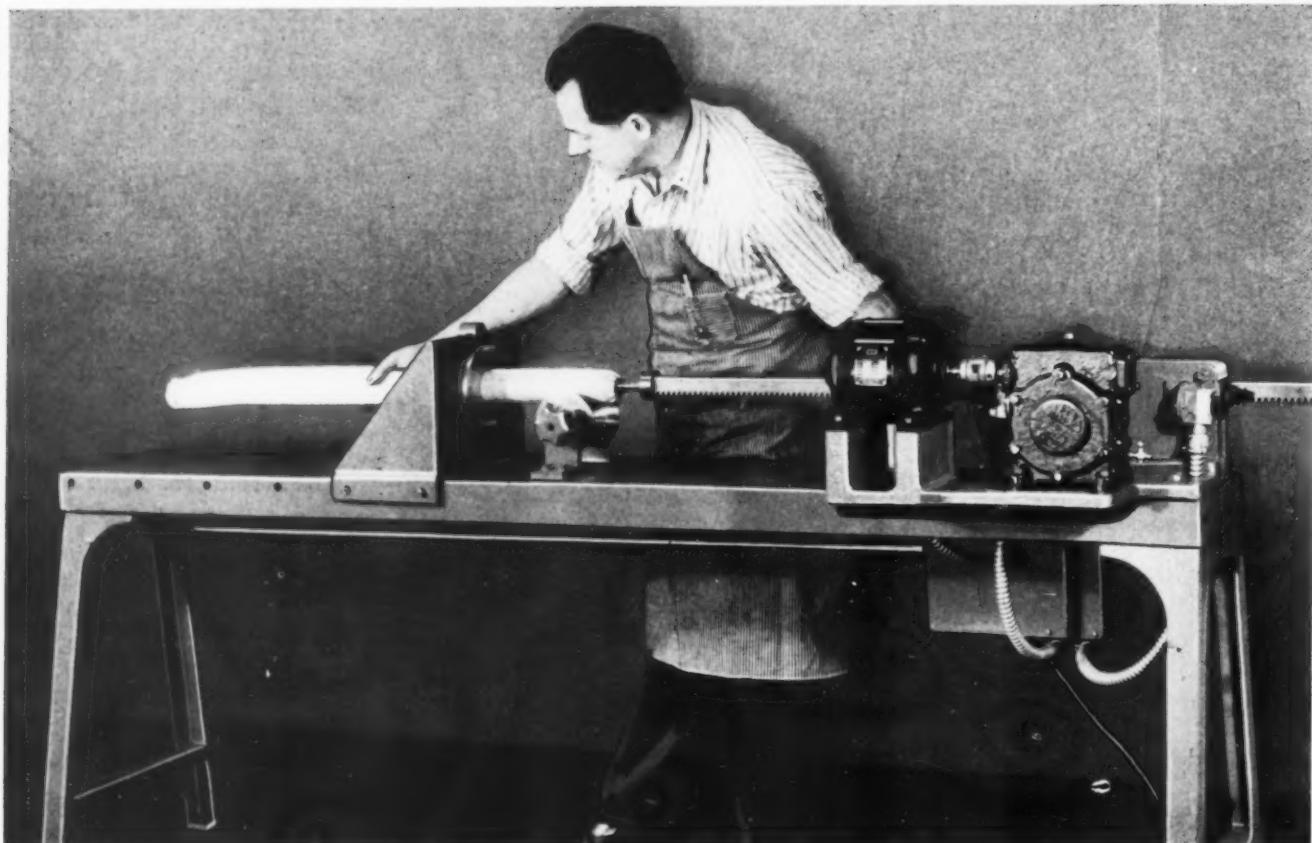
### Trade Shop Expands

Lithographers Service Co., Inc. is expanding its space and adding equipment at its plant, 263 Ninth Ave., New York. The firm now occupies the entire 10th floor and the penthouse at that address. During November a Monotype overhead 48" color camera was installed, and a 40" color camera was previously installed during October. Considerable platemaking equipment has also been added and a Rutherford photocomposing machine with capacity for plates up to 58 x 84", is to be delivered by the first of the year. The firm also operates a subsidiary company, Metropolitan Offset Plate Service, at 154 West 18th St. Steve Esteban is president of Lithographers Service and Thomas C. Bent is general manager.

### Aldine Paper Appoints

Guy B. Wheeler, Jr., who recently dissolved his own specialty paper sales organization, Wheeler Paper Co., Philadelphia, has been appointed manager of the Decorative Papers Department of Aldine Paper Co., Harry E. Gould, president, announced. Mr. Gould stated that the appointment marks the beginning of an expansion of the marketing activities of the 25-year-old firm in the decorative paper field. Mr. Wheeler's own business was discontinued when he was called for military service.

# *Tailored, Machine Sewn Molleton Sleeves Applied in your own plant*



Every offset craftsman knows the advantages of machine made dampener rollers for quality printing. Known also is the difficulty of getting smooth rollers when sewn and applied by hand. Now, with Roberts and Porter Speed Jackets, applied with the Robport Speed Jacket Machine, all the advantages of dampener roller quality are obtained without the inconvenience and time-loss in sending rollers out of the shop for re-covering.

A Robport Speed Jacket Machine in your plant, with Robport Speed Jackets, will provide your offset equipment with "TAILORED" dampening rollers in a minimum amount of time.

Tests prove that a set of 72-inch dampening rollers can be recovered with "TAILORED" Precision sleeves in an average time of 15 minutes. Compare this performance with the time required and higher cost of hand-sewing and applying hand fashioned sleeves — and you'll be convinced that the Robport Speed Jacket Machine will pay for itself in time saved — and make better lithographing easier.

*Send for our folder describing the SPEED JACKET SYSTEM*

Designed and  
Manufactured  
by—

**ROBERTS & PORTER, Inc.**

Chicago  
402 So. Market St.

New York  
100 Lafayette St.

Detroit  
477 Selden Ave.

Boston  
88 Broad St.

## Jos. Hoover & Sons Co. Observes 90th Year



J. W. Hoover, son of the company's founder, is now president of Jos. Hoover & Sons Co.

THE present outlook for calendar illustrations and art reproductions is brighter today than ever before in his company's 90-year history, according to J. W. Hoover, president of Joseph Hoover & Sons Co., Philadelphia lithographers. The company, which was founded in Philadelphia in 1856, this year completes 90 years of colorful history which has paralleled the growth of the lithographic industry.

The founder, Joseph Hoover, father of the company's present president, was a wood worker and a specialization in picture frames led him into the formation of the business of publishing art reproductions as a contemporary of Currier & Ives. On Hamilton Street just above Broad, the firm outgrew its quarters and moved to 804 Market Street, where Gimbel's store is now located. While here he published "chromos," one of which won fame and a medal at the Centennial Exposition. The only other medal winner in the field was Louis Prang, one of the earliest lithographers of greeting cards.

Later expansions brought the plant to North 13th and Buttonwood Streets, where a complete stone lithographic plant was installed, featuring steam presses. This was about 1876. It is said that the first offset lithographic press to be installed in Philadelphia, was put into operation at the Hoover plant in 1906. The founder died in 1913.



"Tony" Capello, general manager, was the first president of the Philadelphia Litho Club.

The company moved into its present plant, which it owns, at 49th and Market Streets, in 1923. At the present time an additional building, planned as a warehouse, is being built directly back of this plant, and when completed, will bring the company's total floor space to about 75,000 square feet.

Today the Hoover company operates a complete lithographing plant which includes their own engraving and plate making photo-composing machines. The press room includes single and two color offset presses and bronzing equipment. A bindery is also operated in connection with the calendar finishing department including cylinder and platen letter-presses. The entire plant is air-conditioned.

J. W. Hoover, in addition to heading the company, serves as secretary of the Employing Lithographers of the Philadelphia Area, and has just been elected a director of the National Association of Photo-Lithographers. Vice presidents of the firm are S. A. Boyer and J. C. Hoover; treasurer is R. A. Hoover, and George R. Hoover is secretary. Anthony Capello is general manager. J. C., R. A. and George R. Hoover are sons of J. W., the third generation to take an active part in the affairs of the company.

The company's line of art reproductions for calendars is in such demand at present that sufficient quan-

tities cannot be produced. The 1947 line was completely sold out by August, 1946, and had to be withdrawn. Samples for the 1948 calendar line are already complete, and art work is now in the house which will be used on 1949 calendars, illustrating how far ahead the company's planning is geared.

### Miehle Appoints

The Miehle Printing Press & Manufacturing Company, Chicago has announced the appointment of Ralph Kleinschmidt as Miehle sales representative in the southeastern states. He will make his headquarters at Atlanta. Mr. Kleinschmidt has had many years of experience with the Miehle company and in the graphic arts industry.

### Wichita Firm to Build

Acme Lithographers and Offset Printers, Wichita, Kan., recently received permission from the Civilian Production Administration to erect an \$11,300 plant.

### Retires After 57 Years



Henry Pentzel, 72, (above), who has been employed by G. Schirmer, Inc., as a music printer and foreman for the past 57 years, is now being retired with a pension, after serving with three generations of the Schirmer family. He started his first job for G. Schirmer, Inc., in November, 1889, when the firm was located at 35 Union Square, New York, and has been with the company ever since. He has been a sportsman in his day, is a charter member of the Bushwick A. C. and has many medals for cross-country running. He was the former manager of young Charlie McLaughlin, featherweight champion in 1917, young Zulo Kid who lost his title to Jim Weild in England, young Al Kake, and many others. On Friday evening, November 8th, the employees of G. Schirmer, Inc., gave him a dinner and reception at Stags-Head restaurant in Jamaica.



**Start the New Year Right  
With Kohl & Madden Inks  
in Your Pressroom**

Every year since 1910 Kohl & Madden Inks have made new friends among the leading lithographic plants throughout the country. If you haven't already discovered the superior qualities of this outstanding line of litho inks, get in touch with our nearest office NOW so that you may enjoy the finest in lithographic and metal decorating inks throughout 1947.

*We are ready at all times to help solve your toughest ink problem.*

## **KOHL & MADDEN PRINTING INK CO.**

New York City—636 Eleventh Ave.  
Buffalo 3—501 Washington St.

Chicago 6—1132 S. Jefferson St.  
Detroit, Michigan

# LITHO CLUB NEWS

## Cites Chief Litho Problem

The biggest reproduction problem in lithographic shops today is variation in tone and color reproduction, according to Paul W. Dorst, technical service representative of the Lithographic Technical Foundation. This observation was given by Mr. Dorst as he addressed the November 26 meeting of the Washington Litho Club, and was based on his experience in analyzing the problems encountered in plants in many parts of the country. The problem is best shown when the same image is placed in multiple on a plate but reproduces with variations in tone and color.

The Foundation started studying this problem a long time ago, he said, but added that it is a long term project. "In the meantime we know a few things about the problem," he added. He said the control of tones extends through all departments from copy through the press. He emphasized the need for uniform grain, uniform and consistent coating solutions and methods, the best possible contact in exposure in platemaking, careful development especially in deep etch plates, and close attention to press water solutions and pressure. He also suggested that the lithographer make his own color charts under his own plant conditions, using the colors and kinds of paper ordinarily used in his plant.

Mr. Dorst also mentioned other research projects under way at the Foundation's laboratories at Glessner House, Chicago. Cellulose gum and the Cronak process look especially promising, he said. Work also is progressing on determining the effects on deep etch coating solutions by high relative humidity.

The club's Christmas party was scheduled for December 12 at the Mayflower Hotel, and Charles Storey, Army Map Service, was chairman of the arrangements. The next regular meeting is Tuesday, January 28 when George Welp, advertising manager of International Printing Ink, will speak

on "Tomorrow's Color for Lithographers."

## Conn. Valley to Elect

The next regular meeting of the Connecticut Valley Litho Club is to be Friday, February 7 at Hartford, when the annual election of officers and directors is scheduled. A nominating committee consists of Ralph Rich, Rich Lithographing Co., Chicopee Falls, Mass.; Joseph Siracusa, A. D. Steinbach & Co., New Haven; W. Edward Taylor, Henry Lindenmeyer & Son, Hartford; C. J. Vandermark, Vandermark-Blake Co., West Hartford; and Edward Michels, Pyne-Davidson Co., Hartford.

The club's first annual Christmas party was held December 14 at the Highland Hotel, Springfield, Mass. A program was planned including dinner, gifts, dancing and entertainment.

## Chicago Club Sees Film

"How To Make A Good Impression," the new Harris-Seybold Co. film was the attraction at the November 21 meeting of the Chicago Lithographers Club. A. S. Harris, president, and William Wood, research director of the company were present for the premier Chicago showing of the picture and spoke on features of their new postwar presses and other equipment and on trade developments of interest to lithographers. To hold the large crowd the Crystal Ball Room at the Hotel Sherman was engaged for the event, which those in attendance said was one of the most practical and interesting programs the Chicago Club has arranged this season.

## Cincinnati Hears Dorst

Paul W. Dorst of the Lithographic Technical Foundation was to be the speaker at the December 10 meeting of the Cincinnati Litho Club, Frank Petersen, educational director, announced. Mr. Dorst is the Foundation's technical service represen-

tative. He recently returned from a study of lithography in Germany, and his report is currently being published in this magazine.

The club's November 12 meeting at Dan Tehan's restaurant, comprised a round table discussion by club members on press problems. The discussion was led by Mr. Petersen and 21 attended. Members recently added to the club's roster include Marion Kingery, Hennegan Co., and Paul Thomssen, Methodist Book Concern.

For some of its future meetings the club expects to obtain transcriptions, slides and other material which the Foundation is preparing.

## Twin Cities Club Meets

The Twin Cities Litho Club (Minneapolis and St. Paul) is now meeting the fourth Thursday of each month at Elsinger's Cafe, University and Prior Avenues, near the midway point between the two cities.

John Eriksen, University of Minnesota, was to be the speaker at the November meeting. He is the son of the club's president, N. Henry Eriksen, McGill Lithograph Co.

At the club's October meeting an open forum for club members was held, while the preceding month James Willis, Harris-Seybold Co., was the speaker.

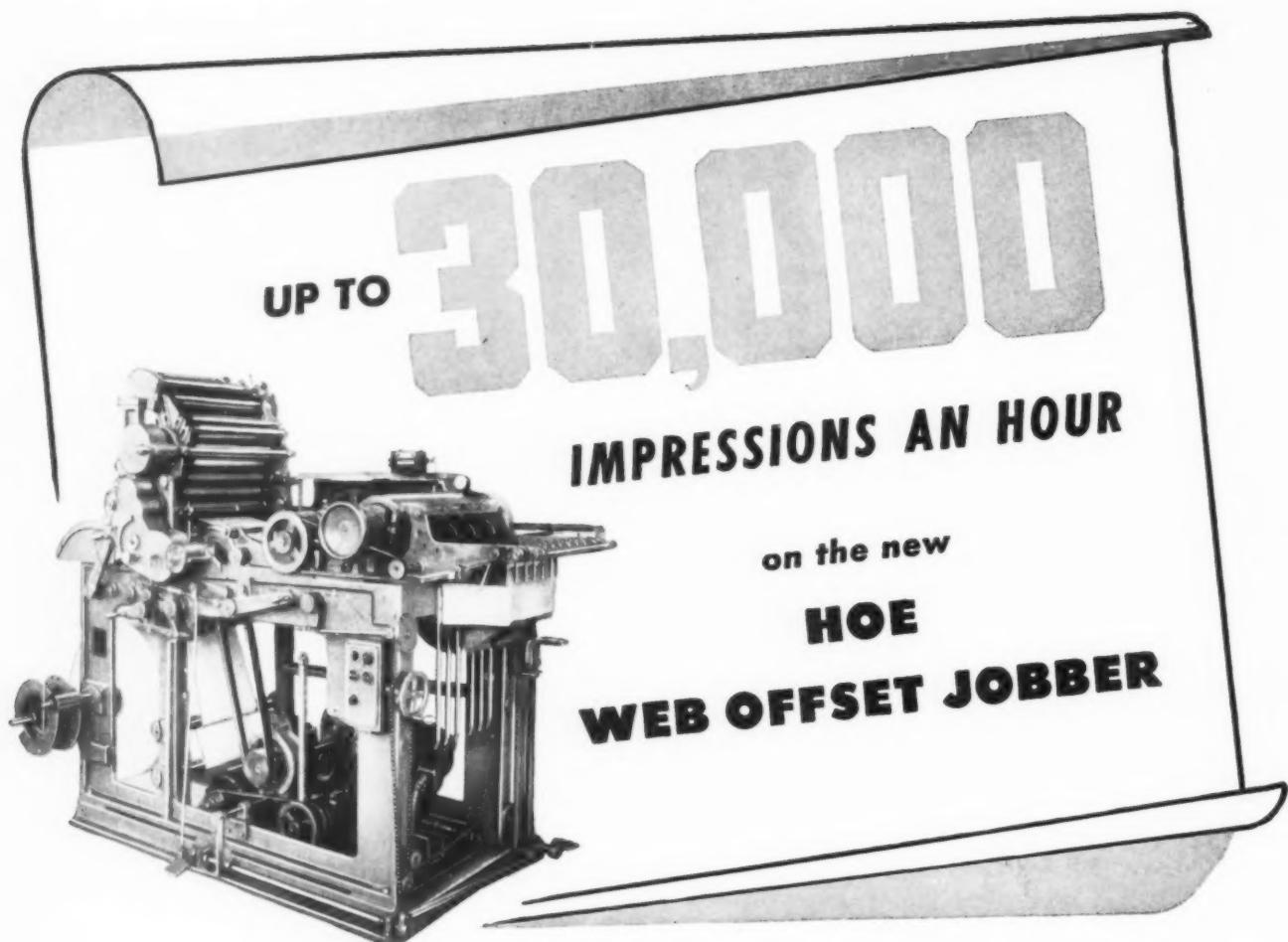
Al Leavitt, Printing, Inc., is vice president of the club, and George Green, Louis F. Dow Co., is secretary-treasurer.

## Plan National Convention

The second annual convention of the National Association of Litho Clubs is planned for Saturday, January 25 at Hotel Gibson, Cincinnati. (Complete story on page 36).

## Carney Speaks at Phila.

John Carney, in charge of art and photography at Brett Lithograph Co., Long Island City, N. Y., spoke before the Litho Club of Philadelphia November 25 and told of some of the production methods in use at the Brett plant. He described a method of making positive duplicate prints in a photographic duplicating machine which utilizes a dry development



## WHAT IT IS

- This compact press — floor space 3½ x 7 feet — accommodates a paper roll width of 10 to 14 inches. A knife, above delivery outlet, provides for a fixed cut-off of 8½ inches, permitting delivered sheets 8½ inches wide, up to 14 inches long. Straight lined-up stacks are delivered ready for packaging, and may be removed without stopping the press.

The Jobber has a 1½ h.p. motor with a variable speed transmission for press speeds from 10,000 to 30,000 impressions an hour. The ink and dampening distribution system is outstanding. The press is fully automatic in operation, and has stop, run and inch button controls. Conveniently located treadles provide for instantaneous stopping.

## WHAT IT DOES

- The Hoe Jobber handles any kind of stock from onion skin to index bristol. Very light or very heavy papers are lithographed at heretofore unheard-of speeds. This versatile press is suitable for printing letterheads, business forms, cards, magazine insets, handbills, and miscellaneous small products requiring one color on one side of the sheet. It is especially valuable in competitive estimating.

Because of quick wash-up time, and easy paper roll and plate changes, runs as small as 1,000 sheets can be handled quickly and profitably.

Make a date today for a Hoe representative to give you further information on this remarkable press.

# HOE

R. HOE & CO., INC. 910 East 138th Street, New York 54, N. Y.  
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method. The same machine is used for producing color proofs from positives in 15 minutes for checking, although process inks cannot be matched exactly in such proofs. Other methods in the plant include the use of exposure control devices on cameras, printing frames and photo composing machines.

Mr. Carney related how the entire plant had been reorganized in recent years from stone lithography to modern photographic offset methods. Twelve thousand litho stones had been disposed of, he said, after transparent proofs had been pulled and contact negatives and positives made for filing. He predicted wider use of photographic masking methods.

The meeting was held at the Poor Richard Club and 119 attended.

New members announced included Joseph Hickey, superintendent, Cuneo Press, and James Banta, Alfred J. Jordan Inc., the latter an associate member. A recent new member of the club is William Garten, first president of the Litho Club of Baltimore. A guest at the meeting was Norman Heath, present president of the Baltimore club, who invited Philadelphians to attend his club's Christmas party and February oyster roast.

The Philadelphia club's annual ladies night is to be held at the Benjamin Franklin Hotel, Saturday, January 18. The program is to include dinner, gifts, dancing and entertainment. Frank Ferrigno is chairman.

The next regular meeting of the club is Monday, January 27 when the annual quiz program is planned. Joseph Mazzaferri is in charge of plans for that meeting.

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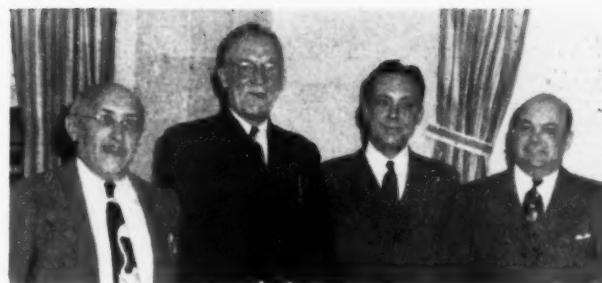
#### Club Tours Vulcan Plant

The Vulcan Proofing Co., was host to the New York Litho Club November 20 for dinner at the Frontenac Grill, a chartered bus ride to Brooklyn and a guided tour of its plant where lithographic blankets are manufactured. One hundred and twenty club members and guests attended and Joseph C. Dunn, Vulcan executive vice-president, Ted M. Broadstrom, sales manager, and others of the company's factory and sales staff, acted

#### Detroit Club Elects Officers

New officers of the Detroit Litho Club: L to R—Sol Frenkel, Process Litho. Co., Sec'y; Harry Rippert, Federal Litho. Co., president; Thomas Munz, Safran Printing Co., vice-president; and Bruce Bevins, Calvert Litho. Co. treasurer.

Fred Siggins, Siggins & King, is the retiring president. New officers were installed at the club's regular meeting at Carl's Bar, November 15, when 94 members and guests attended. A feature of the



meeting was the motion picture "How to Make a Good Impression," sponsored by Harris-Seybold Co. The club's regular meeting date is the third Thursday of each month.

as guides through the plant. Starting with the pilot plant and laboratory where materials and methods are tested, the men were shown through various departments where natural and synthetic rubber is processed, milled and rolled, where fabrics are inspected, coated, and processed into blanket material. The blankets are then cured, cut, finished, inspected and prepared for delivery.

The club's Christmas party was scheduled to be held at the Building Trades Club December 18 when a stag dinner was planned. This takes the place of the club's regular December meeting.

The next regular meeting is to be Wednesday January 22 when the annual election is planned. Larry Littmann, National Process Co., has been nominated for president.

The annual ladies night has been announced for February 22 and will be held again at the Waldorf-Astoria.

New members recently added to the club's roster include: Victor E. Friedman, Crafton Graphic Co.; Michael Buzdygan and John Spiegel, Jr., Daniel J. Murphy Co.; Mario A. De Vita, Columbia Lithograph Co.; Benjamin Altamore, The Burdick Co.; Frank Landesman, Canterbury Printing Co.; Wallace A. Glover, American Colotype Co.; Lon England, Pepsi-Cola Co.; and Antonio J. Ponsini, Rogers-Keliogg-Stillson, Inc.

\*

#### Dayton Re-elects Stittgen

William R. Stittgen, Reynolds & Reynolds Co., was re-elected president of the Dayton Litho Club at its November meeting. Charles Imhoff,

National Manifolding Co., was re-elected vice president; and Harold Holland, Standard Register Co., was elected secretary-treasurer, succeeding Frank Romeo, Egry Register Co. O. G. Fricke, Jr., has been named publicity chairman.

As a feature of the club's November meeting a visit was made to the plant of Reynolds & Reynolds where special interest was shown in color separation work. The tour followed a dinner meeting at Suttmiller's Restaurant.

The December meeting was to feature a speaker from the Dayton Rubber Mfg. Co., manufacturer of rollers and other products.

#### Randall Speaks at Balt.

Some of the observations of a salesman who has visited lithographing plants in 20 states were told at the November 18 meeting of the Litho Club of Baltimore by Ralph H. Randall, Harris-Seybold Co. He related how some plants have retained obsolete equipment which hasn't turned a wheel in several years and have steadfastly resisted the improved methods of lithographic production. On the other hand he told of some plants which started in business as blue print and photostat houses just a few years ago, have added offset equipment, observed what is now in the trade, attended conventions, read trade magazines, and as a result are rapidly growing into important lithographic houses. "Money spent for plant visits, for attending trade meetings is as important as any money we spend," he said.

He introduced the new Harris-Sey-

bold color motion picture "How to Make a Good Impression" which was one of the highlights of the dinner meeting. About 110 members and guests attended the meeting.

Plans for a busy social season were announced. Heading the list was the annual Christmas Party, planned for December 14 at the Lord Baltimore Hotel. Al Miller, Bingham Bros. Co., was chairman of the affair.

No regular meeting was planned for December because of the Christmas party, and the next regular meet-

ing is to be Monday, January 20, at the Emerson Hotel.

Edwin Steinwedel, Crown Cork & Seal Co., the club's past president, is chairman of arrangements for an oyster roast planned for Saturday, February 15 at Beyer's Grove, Middle River, Md.

Other winter plans of the club include a home and home bowling match with the Litho Club of Washington.

Committees recently named by the club include the following chairmen:

J. Albert Caldwell, Young & Selden Co., constitution and by-laws; Lloyd Bowden, Continental Can Co., membership and attendance and golf; E. A. Steinwedel, Crown Cork & Seal Co.; visiting committee and oyster roast; William Banks, Lord Baltimore Press, program: A. H. Miller.

## LITHO CLUB GUIDE

### BALTIMORE

T. King Smith, Secy.  
1613 Holbrook St.,  
Baltimore, Md.  
Meets 3rd Monday, Hotel Emerson.

### CHICAGO

Elmer Schmalholz, Secy.  
Chicago Planograph Co.,  
517 S. Jefferson St., Chicago 7.  
Meets 4th Thursday, Bismarck Hotel.

### CINCINNATI

Louis Weiss, Secy.-Treas.  
Progress Lithographing Co.  
Main Street  
Reading, Cincinnati, Ohio  
Meets 2nd Tuesday, Dan Tehan's  
Restaurant.

### CONNECTICUT VALLEY

Robert E. FitzGerald, Secy.  
New England Prtg. & Litho Co.,  
747 Barnum Ave., Bridgeport, Conn.  
Meets 1st Friday, March, May, Sept., Nov.  
and sometimes other months, City Club,  
Hartford.

### DAYTON

Frank Romeo, Secy.  
Egry Register Co.,  
417 E. Monument Ave., Dayton.  
Meetings announced locally.

### DETROIT

Sol Frenkel, Secy.  
Process Litho Co.,  
2863 E. Grand Blvd., Detroit.  
Meets 3rd Thurs. at Carl's Chop House.

### MILWAUKEE

Howard C. Buchta, Secy.  
E. F. Schmidt Co.  
341 N. Milwaukee St., Milwaukee.  
Meets 4th Tuesday at the Boulevard Cafe.

### NEW YORK

Henry Bischoff, Secy.  
Oberly & Newell,  
545 Pearl St., New York.  
Meets 4th Wednesday, Building Trades  
Club, 2 Park Ave.

### PHILADELPHIA

Joseph Winterburg, Secy.  
622 Race Street,  
Philadelphia 6.  
Meets 4th Monday, Poor Richard Club,  
1319 Locust St.

### ST. LOUIS

Harold Rohne  
Letterhead & Check Corp.  
2940 Benton St.  
Open meetings in Feb., April, June and  
Aug.

### SAN FRANCISCO

Wm. Fennone, Temp. Secy.  
Lehmann Prtg. & Litho. Co.  
2667 Greenwich St.  
San Francisco, Calif.

### TWIN CITIES

N. Henry Eriksen, Pres.  
4117 Upton Ave., South  
Minneapolis 10, Minn.

### WASHINGTON

John Davis, Secy.  
Guthrie Lithograph Co.  
1150 First St., N. W.  
Meets 4th Tuesday, Hotel 2400 (N. W.  
16th St.)

### NATL. ASSN. OF LITHO CLUBS

Ken O. Bitter, Secy.  
523 Wilton Road.  
Towson 4, Md.

# "FIRST" in PAPER

For nearly a century character, dependability and prestige have distinguished CAREW Quality Papers.

These qualities have been developed by an intimate knowledge of the art of fine papermaking. Master craftsmen have given their talented ability to the making of these superior papers.

For genuine beauty of appearance, strength and long life, be sure to specify CAREW Bonds and Ledgers. Consult your Paper Merchant.

#### CAREW BONDS

OLD HAMPSHIRE BOND EXTRA 100% RAG

TITAN BOND 100% RAG

TREASURY BOND 75% RAG

LENOX BOND 50% RAG

MERIT BOND 25% RAG

EMPIRE BOND 100% RAG

ANGLO-SAXON BOND 75% RAG

DARTFORD BOND 25% RAG

RESEARCH BOND 25% RAG

#### CAREW LEDGERS

VULCAN LINEN LEDGER 100% RAG

DEPENDENCE LEDGER 75% RAG

COURT LINEN LEDGER 25% RAG

LENOX LEDGER 50% RAG

APPRAISAL LEDGER 25% RAG

**CAREW** MANUFACTURING  
COMPANY  
SOUTH HADLEY FALLS, MASSACHUSETTS

*Makers of the Famous  
Old Hampshire Bond*



B  
B  
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*Excellolith*  
470

B  
B  
B

OFFSET BLACK **470**

S E N S A T I O N A L L Y   N E W  
DIFFERENT FROM ANYTHING YOU'VE EVER USED



Lithographers, after rigid press room tests, praise it highly, highlights and middletones print up sharper than ever before.

Excello-Lith Black makes it possible to print large solids on all kinds of stock without piling too much ink on the rollers, and small reverse type keeps open and scum free, without constant etching with the acid sponge.

The PH of the fountain solution can be kept higher than average and yet the dampners stay cleaner longer.

Clean, sharp impressions under conditions most favorable to the plate on the press, make long runs of high quality the rule, rather than the exception.

Yes, Excello-Lith Black is streamlined to a "T". It's a distinguished achievement in modern ink making.

A N   O F F S E T   B L A C K   •   •   P A R   E X C E L L E N C

**B E N S I N G   B R O T H E R S   &   D E E N E Y**

THE COMBINATION OF A CENTURY OF PRINTING INK EXPERIENCE

PHILADELPHIA

CHICAGO

LOS ANGELES

Bingham Bros. Co., entertainment; W. H. Parker, Parker Metal Decorating Co., budget; and Ed Perry, International Printing Ink, bowling.

#### Milwaukee Hears Ink Talk

"New Developments and Trends in Printing Inks" was the subject of a talk by L. W. Hraback, Sleight Metallic Ink Co., before the November 26 meeting of the Milwaukee Litho Club. The 35 persons attending showed interest in the subject by asking a number of questions following the talk. Howard C. Buchta, club secretary, reported. The meeting was held at the Boulevard Cafe.

At the December meeting, which moved up to December 17 because of the holidays, the club members were to be guests of Chester A. Scheidler, Chas. Hellmuth Printing Ink, Co.

#### St. Louis Holds Dinner

The St. Louis Litho Club was scheduled to hold a turkey dinner meeting December 5, DeSoto Hotel, with Kurt Vahle, sales manager of Cupples-Hesse Corp., as guest speaker and toastmaster. Members and their guests were to attend. The revised by-laws were accepted by the members in attendance at the November meeting.

#### Minnesota Group Elects

Some of the lithographers prominent in the recent election of officers and directors of the Graphic Arts Industry, Inc., Minnesota—Standing (L. to R.): A. W. Taylor, Stewart & Taylor, Duluth, re-elected director; R. H. Hervey, Mgr., Graphic Arts Dept., J. R. Watkins Co., Winona, re-elected director; and J. C. Buckbee, Bureau of Engraving, Inc., Minneapolis, past president. Seated: Raby Plank, Harrison & Smith Co., Minneapolis (now retired), past president; and William J. Hickey, H. M. Smyth Printing Co., St. Paul, re-elected vice president. Clarence Mann, Printing, Inc., Minneapolis, was elected president. Charles W. Cole, Harrison & Smith, is chairman of the lithographers division, and directors of this division include: Mr. Buckbee; Felton Colwell, The Colwell Press, Inc.; Ralph W. Cornelison, H. A. Rogers Co.; Elmer I. Derrick, Midwest Prtg. & Litho Co.; Paul E. Foss, Paul Foss Printing & Lithography; William T. Greig, Bureau of Engraving; Mr. Hickey; Charles H. Jensen, Jensen Printing Co., all of Minneapolis; Fred'k B. Johnson, Johnson Printing Co., Eau Claire, Wis.; Mr. Mann; Geo. F. Munier, Poucher Printing & Litho Co.; E. H. Olson, Japs-Olson Co.; and S. Walter Sears, Mono-Trade Co., all Minneapolis.



#### Lease Big Trenton Press

The Hoe eight-color web offset press at the *Trenton Times* plant, Trenton, N. J., has been leased for operation by Crane Press, it has been learned. The press will remain at the *Times* plant and will continue to be operated by the same staff as previously. Later on more bindery equipment may be added, it was said. Production will continue to include four-color magazine work. Allen Hofrichter, one of the principals of Crane Press is also an officer of

Domesday Press, Inc., New York book publishers. Robert Bodell continues to supervise the production at Trenton. Crane's New York office is 1 Madison Ave.

The giant press, described in an article in *Modern Lithography* last February, takes a web 70 inches wide and prints four colors on each side at speeds ranging up to 15,000 per hour.

#### First Auto Telephone

The first mobile radio-telephone to be subscribed for in New York state is now in operation in the automobile of Sam S. Himmell, president of Baldwin Paper Co., New York. With plans to "render more efficient service to customers," Mr. Himmell, while driving in his car, can be connected with any telephone in New York City.

#### Coast ALA Holds Party

The annual sick benefit dance of Local No. 17, Amalgamated Lithographers of America, San Francisco, was held November 23 at Scottish Rite Auditorium. Termed the "Big Game Dance," the affair included orchestra, entertainment, and prizes.

#### Joins Geo. R. Keller

Frank C. Hoy, formerly in the Printing and Lithographing Machinery section, Bureau of Ships, U. S. Navy, has joined the sales staff of George R. Keller, Washington, D. C.



#### Wichita Shows Printing

The Printing Industry of Wichita, Kan., exhibited its products as well as a letterpress and offset press in operation at the Made-In-Wichita show November 13-17. At left is a Miehle vertical and at right is a Little Chief offset press, which were the primary attractions drawing some 100,000 visitors to the booth. Hand-outs were produced on the spot and handed to visitors. (Photo by McCormick-Armstrong Co.)

# Yours for the asking! /\*

## ANOTHER NEKOOSA AID TO PRINTERS!



## Nekoosa LETTERHEAD PORTFOLIO

complete with

- Booklet on Modern Letterhead Design
- Many Samples of Actual Letterheads

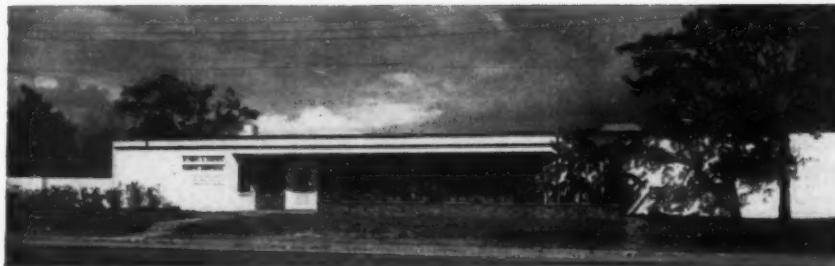
Nekoosa's new Portfolio of Modern Letterheads shows how *any* printer can design attractive letterheads for *all* purposes... using only standard typefaces and ornaments available in the average print shop. This portfolio will not be given to the public. It was created *exclusively* for printers, to help you get your *full* share of profitable business stationery printing.

\* Your local Nekoosa paper merchant will be glad to supply you with a copy of the Portfolio of Modern Letterheads. No charge or obligation, of course.

BOND  
*Nekoosa*  
MADE IN U.S.A.

NEKOOSA-EDWARDS PAPER COMPANY • PORT EDWARDS, WISCONSIN

## New Texas Plant



Climaxing a ten-year rise from a "two-by-four" shop, Wetmore & Company, designers and producers of printed advertising, moved last month into its new offices and plant at 1015 S. Shepherd Drive, Houston, Texas. (Above) Exterior of the firm's new home was designed in ranch-type architecture. Built of steel and concrete tile throughout, the \$100,000 building covers 20,000 square feet on a one-acre tract. Straight-line production is provided in plant design and latest equipment.

ment has been installed for letterpress, lithography and silk-screening. Humidity control, important in Houston's climate, permits control of color-printing operations. A large modern art department, staffed by a number of artists and designers, is a feature. The company's work includes the design and production of 24-sheet posters, decals, bus cards, cloth banners, folders, booklets, house organs, catalogs, labels and point-of-sale displays. Seventy people are employed.

## Coast Firm in New Plant

Williams Lithograph Co., San Francisco, announced in November the completion of a new modern plant at 414 Brannan St. The new building, which has 17,000 square feet of floor space, has both truck and railroad loading facilities. Departments offering service now include commercial art; commercial photography; transparencies and making of color prints; lithographic camera; reproduction art; platemaking, pressroom; and bindery.

Ad Williams is president and general manager. Stuart Rogers is vice-president and sales manager. Lawrence Bacigalupi, vice president, Clyde F. Carr, assistant secretary and production manager, and John F. Miller, treasurer and office manager.

The company mailed a three color lithographed brochure announcing the move.

## Kansas Firm to Build

A new plant, with 15,000 square feet of floor space is being built by DeLuxe Check Printers, Inc., Kansas City, Mo. The firm, which has its home office in St. Paul, is erecting its new plant in Kansas City, Kan.

## Pacific Press to Expand

Pacific Press, Inc., Los Angeles lithographers and publication printers has announced plans for the erection of a new \$1,500,000 plant to be built immediately in the Vernon section of that city. It is to have

company's offset production are text books, *Time* magazine (Latin America and School editions), *Fortune* covers and some inside forms, and other work. Mr. Roberts, who is a director of the New York Litho Club, was formerly connected with Commercial Decal, Inc., Mt. Vernon, N. Y.

## DMAA Expands Program

Plans for launching an expanded program of activity in 1947, with emphasis on basic research projects to be conducted by users and producers of direct advertising, were outlined November 20, at a meeting of the Direct Mail Advertising Association, held at the Waldorf-Astoria Hotel.

In projecting the 1947 program, Edward N. Mayer, Jr., president, James Gray, Inc., president of the DMAA, stressed the development of research as a factor essential to the growth of the medium and its more productive use by small and large companies in virtually every business classification. A continuing survey, recently inaugurated under the supervision of W. D. Molitor, Edward Stern & Co., Philadelphia, will be intensified during the coming year. The annual Fifty Direct Mail Leaders, sponsored by the association, will also be promoted aggressively with a view to offering advertisers, agencies and media a practical interchange of direct mail information.

## Eagle-A Men Meet



The Annual Sales Conference of the American Writing Paper Corporation was held at their general offices in Holyoke, Massachusetts, starting October 21st. (Above) The program included a tour of the Eagle-A mills under the guidance of E. C. Reid, vice-president in charge of manufacturing. The sales sessions were held under the direction of J. H. Sweet, vice-president in charge of sales, assisted by J. G. Mc-

Naught, manager of mercantile papers, and F. A. Curtis, manager of technical and industrial papers. W. J. Norton, treasurer, headed the sessions on advertising and sales promotion. Salesmen attending the conference included W. J. McCormick, San Francisco; H. S. Greason and W. H. Shine of New York; F. W. Hastings, Philadelphia; G. G. Olson and R. H. Burnett of Chicago and R. L. Day of Boston.

IN THE SPOTLIGHT OF QUALITY...

S O L U T I O N

No. 16



...And SINVALCO No. 16 is a Stabilized Gum Solution of unsurpassed quality!

Made of the best gum obtainable, laboratory tested for impurities, mixed to a density of 14 degrees baume (which may be diluted with water to a thinner consistency if desired), and rendered practically non-souring, SINVALCO No. 16 will meet the most exacting requirements of plate and pressroom.

Try SINVALCO No. 16 on your next job and prove to yourself its outstanding efficiency. SINVALCO Technicians are always on call to demonstrate in your own plant the advantages of using this and other SINVALCO Standardized Chemicals.

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**Sinclair and Valentine Co.**

Main Office and Factory: 611 West 129th Street, New York City

Baltimore Birmingham Charlotte Cleveland Dayton Havana Kansas City Mexico City Nashville New Orleans San Francisco  
Boston Chicago Dallas Detroit Jacksonville Los Angeles Miami New Haven Philadelphia Seattle

**SINVALCO**  
*Ready to Use*  
**STANDARDIZED**  
**CHEMICALS**

**SINVALCO** Solution No. 1  
Deep-Etch Coating Solution  
(Ready Mixed)

**SINVALCO** Solution No. 1  
(A and B)  
Deep-Etch Coating Solution

**SINVALCO** Solution No. 2  
Stopping-Out Shellac

**SINVALCO** Solution No. 3  
Deep-Etch Developer

**SINVALCO** Solution No. 4  
Deep Etching Solution for Zinc

**SINVALCO** Solution No. 5  
Deep Etching Solution for Aluminum

**SINVALCO** Solution No. 6  
Lithotine Concentrate

**SINVALCO** Solution No. 7  
Deep-Etch Lacquer

**SINVALCO** Solution No. 8  
Developing Ink

**SINVALCO** Solution No. 9  
Asphaltum

**SINVALCO** Solution No. 10  
Stabilized Albumin Solution

**SINVALCO** Solution No. 11  
Litho-Kleen Concentrate

**SINVALCO** Solution No. 12  
Plate Etch for Zinc

**SINVALCO** Solution No. 13  
Plate Etch for Aluminum

**SINVALCO** Solution No. 14  
Fountain Etch for Zinc

**SINVALCO** Solution No. 15  
Fountain Etch for Aluminum

**SINVALCO** Solution No. 16  
Stabilized Gum Solution  
Lithotine

## Offset Night Draws 300

"Offset Night" of the Chicago Club of Printing House Craftsmen last month brought out nearly 300 Chicago graphic arts representatives to hear Prof. Robert F. Reed and Michael H. Bruno of the Lithographic Technical Foundation. Prof. Reed outlined the history of the Foundation, described its facilities and discussed the part the Foundation is playing in developing the technical phases of lithography, while Mr. Bruno devoted his time to relating some of the past accomplishments of the research program and told what is on the agenda for the coming year. Both speakers helped to clarify the position of the Foundation in the advancement of lithography from the national viewpoint. Following the two talks there was a lively question and answer period.

An exhibit of "Books By Offset," arranged for the occasion attracted considerable attention and evoked many questions from printers who examined the display. For the first time in the Chicago Club's history, name badges were provided for those in attendance for easy identification.

## Books by Offset Expands

Books By Offset Lithography, Inc., has opened offices in the Metropolitan Life Tower, 1 Madison Avenue, (Room 360), New York 10, Harry A. Porter, president, announced during November. A. Albert Freeman, executive director, will make his headquarters at the new address. The telephone number remains Lexington 2-6689.

While the past activities of the group have been devoted chiefly to the annual contest to determine the "best books" produced by offset lithography, and to the subsequent exhibition of the winning titles, the future work of Books by Offset, will be considerably broadened. Mr. Porter said.

Mr. Porter added that every effort will still be directed toward creating a greater appreciation of lithographed books, and to pointing out, by example, that lithography serves the needs of the publisher as a com-

panion method to letterpress printing.

Complete details of future plans for Books by Offset, Inc., were not announced, but Porter did indicate that calls for entries in the 1947 "offset best" would soon be issued. Interest in the contest was already "running high" in publishing circles. As in the previous year, the contest is sponsored by the Joint Lithographic Advisory Council.

A membership drive is now under

way, Mr. Porter concluded. Neither publishers nor lithographers are eligible for active membership in Books by Offset, Inc., since "they are the beneficiaries of the activity," as Porter put it. Organizations eligible for membership are classified as suppliers to the publishers and lithographers, including the equipment manufacturers, the suppliers of inks, rollers, blankets, etc., and both the manufacturing and merchant interests in the paper industry.

# Check THESE OUTSTANDING ADVANTAGES OF "33" INK CONDITIONERS!



- ✓ It increases the affinity of ink to paper.
- ✓ Permits ink to print readily on hard finish stocks.
- ✓ The purging action of "33" keeps halftones clean and open.
- ✓ Added to inks for rubber plate printing, it assures sharp impressions without squeeze.
- ✓ Unexcelled for gloss inks and over-print varnish. It prevents too rapid drying on the press.
- ✓ "33" aids trapping of process and label inks in multi-color printing.
- ✓ Prolongs roller life. Repels moisture and stickiness.

Ask for a free copy of "TO THE PRESSMAN" which lists all the features and advantages of "33" Ink Conditioners for letterpress and offset printing.

### 8-LB. TRIAL ORDER

See your local dealer or jobber—or write direct for an 8-lb. trial can. If "33" does not satisfy you completely, return the unused portion at our expense. Specify "33" for letterpress and "O-33" for litho and multilith.

**100%  
Guarantee**

### Opportunities for Distributors

Re-alignment of territories has created a few openings for dealers and jobbers. Write for complete details of our liberal proposition. Once sold, "33" is always used. Get the facts NOW.

**Central COMPOUNDING COMPANY**  
1718 North Damen Avenue, Chicago 47, Illinois

IN CANADA — IT'S CANADIAN FINE COLOR CO., LTD., TORONTO  
Export Division: Guiterman Co., Inc., 35 South William Street, New York 4, N.Y.

Number 12 in the Mohawk Series on the American Indian



Peace Treaty, 17th Century Style. A Mohawk Chieftain presents his claims and they become part of the Treaty of the Five Nations.

Today, Mohawk's claims are acknowledged for  
**MOHAWK**  
**SUPERFINE TEXT**

Whether it be for offset or letter-press—whether for one color or five—it is a revelation in the excellency of its press performance and in the richness and beauty which it lends to the finished job.

Mohawk Paper Mills, Cohoes, N. Y. **MOHAWK**



CULVER SERVICE

### Adds Air Conditioning

Edwards & Deutsch Lithographing Co., Chicago, is expecting to start installation of an air conditioning and humidifying outfit in its photo-composing room soon after January 1. "At least we have a promise on it," said C. T. Fairbanks, company president. Four new Harris presses, an 82-inch cutter and other machinery are also expected "sometime," he said. Present production capacity of the plant is practically sold out for the entire year of 1947, Mr. Fairbanks stated, so that the new equipment is badly needed right now. The question of enlarging the plant is being studied, he revealed, but until land can be acquired, this will have to be held in abeyance.

### Expands Employee Aid

In another move to strengthen its employee relations program, the Meyercord Co., Chicago decalcomania manufacturers, has revised its employee group insurance policy to extend coverage to the families of all workers participating in the plan. For several years employees have been covered on accidents, sickness and death and, beginning December 1, their families are also to be protected on disabilities arising from accidents and sickness. Leonard Knopf, company president, announced. Families of about 600 employees in the concern's various branches will be affected, he said. The Meyercord Company's policy also includes a pension when employees reach the age of retirement.

### No NYPLA Party

For the first time in several years no Christmas party was held this year by the New York Photo-Lithographers Association. Walter E. Soderstrom, executive secretary of the National Association of Photo-Lithographers, with which the New York group is affiliated, said that the association offices are too jammed with labor negotiations and other business.

### Love Heads Ideal Roller

H. Norris Love, formerly vice president and production manager of Ideal Roller & Mfg. Co., recently be-

came president. He succeeds Wells A. Lippincott who recently retired to live in Stuart, Fla. The firm has two factories, one at Chicago and one at Long Island City, N. Y.

### Hold St. Louis GA Dinner

The Associated Printers & Lithographers of St. Louis held its third annual graphic arts dinner November 13, and 450 buyers of printing were guests of the association. A copy of the new book, "St. Louis Means Busi-

ness" was presented to the mayor, and each guest at the dinner was presented with the book as a souvenir of the evening. The 10,000 copies which constitutes the first run, are already exhausted and requests for additional copies have been received by the association. The 76 page book is a two-color printing and lithography job, with one page lithographed in seven colors. The association announced that its membership now has reached an all-time high of 220 members. Five years ago the membership was 50.

# HUNT'S Liquid DEVELOPING INK

**perfectly smooth,  
uniform, stable,  
and gritless —**

**New manufacturing method, utilizing turbine principle,  
NOW gives you the perfect developing ink.**

HERE'S a perfectly uniform ink with good working body and easy flow that's a time saver for platemakers. It eliminates hours of rolling-up, and the scumming-up of plates caused by rosin or chalk. The solution breaks away cleanly with no dragging of dots, and the image is brought out sharply with full tone value, and all intermediate tones developed to proper proportions. With HUNT'S Liquid DEVELOPING INK there is no need for chalk or rosin, and the acid can be used full strength. Plates can be gummed up for storage, or placed on press without washing out. Bring out the best in your plates with this quality developer. Available in quart and gallon cans; order from nearest branch. HUNT Technical Service can help solve your problems

**PHILIP A. HUNT COMPANY**  
ESTABLISHED 1909  
BROOKLYN 22, N. Y.

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# *P* **First** AND FOREMOST IN PROCESS LENSES

These fine quality lenses for producing the type of work wanted by the commercial, industrial and advertising world today definitely stand out as the winner in their field. They are known and recognized for their high quality and photographic accuracy. "Scientific" is more than just a part of their name. Precision made, they

meet the most exacting demands of the industry.

Unsurpassed for color corrections . . . absolutely free from distortion . . . crisp imagery from shadows to finest highlight dot . . . they may be installed with the knowledge that they will perform uniformly, accurately and with complete satisfaction.



AVAILABLE FOR IMMEDIATE SHIPMENT  
Metra-Scienar in the following sizes:

14" F9 16 1/2" F9.5 9" F11

24" F11 and 30" F12.5

Hard, durable, non-reflecting coatings can be added to any of these products at related additional cost.

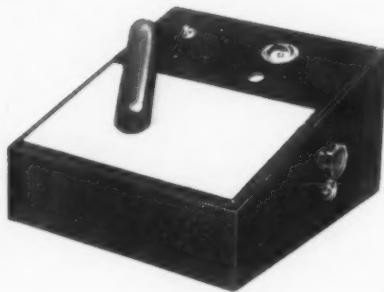
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## EQUIPMENT & BULLETINS

### New Densitometer



A new densitometer, said to be ultra-sensitive, has been designed by National Photocolor Corporation to permit exact determination of light transmission through photographic negatives and other semi-opaque objects. It embodies latest developments in electronic design and is especially suited to the requirements of photographers, lithographers, and laboratories requiring absolute precision in their work, the company says. The new National Photocolor densitometer supersedes the company's previous models. It records a range of negative densities from 0 to 3.0 with uniform scale and sensitivity and with readings to less than .005 density units. The smooth top offers ample space for large negatives. There is a  $\frac{3}{4}$ -inch illuminated finder disc for locating the area in the negative where it is desired to take a reading. When the pick-up arm is lowered the finder disc goes dark and the measuring beam of light is only  $1/16$  inch in diameter. The manufacturer states that the operation is simple. With the pick-up arm in the lowered position, the knob on the side is turned until the "magic eye" detector snaps shut. Then the density is read directly from the dial. Balanced vacuum photocells give stability and eliminate line voltage effects. The complete densitometer weighs 15 lbs., is  $14 \times 14 \times 8$  inches high, and uses AC current. It requires no batteries or galvanometers. The company is located at 305 East 43rd St., New York 17, N. Y.

### Aids on Planning Plants

A 32 page booklet "The Layout of Printing Plants. A Practical Treatise Outlining the Basic Elements to be Considered," has just been issued by the Graphic Arts Association of Illinois. Written by Mark E. Powers, printing engineer, the booklet contains the following chapters: What to Consider; Objectives to be Attained; A Suggested Check List; Inviting Your Organization to Help With the Planning; How Cooperation Pays; Selecting the Scale for the Drawing; Accuracy is Essential in the Layout of

the Floor Plan; The Floor Plan Must Show Building Details; Use of Quadrille Paper; Planning for a New Building; Selecting Type of Templet; Development of the Details for a Two Dimensional Templet; Three Dimensional Templets are Attractive; Some examples of Printing Plant Templets; Other Problems of Layout; Checking the Layout on the Basis of Feet of Travel; Testing the Layout by Means of a Flow Chart; and Measuring the Savings Resulting from the New Layout.

The booklet is written in non-technical language and is planned as an aid for owners and executives. Numerous charts are used to illustrate various ideas. The association, located at 105 West Monroe Street, Chicago 3, offers the booklet at \$2.50 per copy.

### New Ozalid Machine

A new Ozalid Streamliner machine has been announced by the Ozalid Division, General Aniline and Film Corp., Johnson City, N. Y. The machine, for positive printing with a dry developing process, produces positive prints from positive copy, and can be used for many types of duplicating work, the company says. Lines and images of originals can be reproduced in black, blue, red, sepia or yellow, on paper, cloth, foil, film or plastic, according to the company's announcement. Print making is now a "desk job," the announcement states in describing the simplicity of operation of the machine. The machine accommodates materials up to 42" wide and any length. Samples of work, specifications and other details are available to *Modern Lithography* readers from the company.

### Offers Letterhead Aid

"A fine Letterhead is a Business Asset" is the title of a booklet just issued by American Writing Paper Corp., Holyoke, Mass., which is offered as an aid to users, designers and producers of business letterheads. It takes up in detail the important components of a letterhead. Copies are available to those who write for it on their business stationery.

### Issue Proving Manual

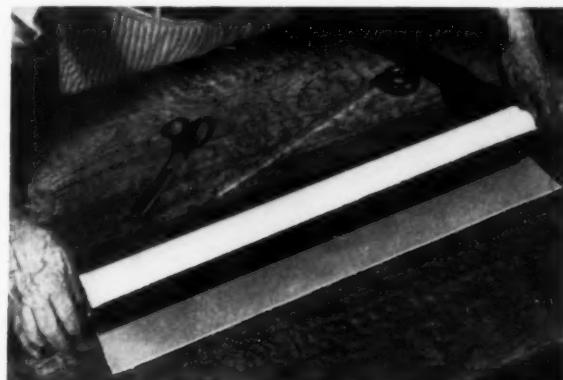
Shop Manual No. 22, "Proving for Offset Lithography" was issued recently by the Lithographic Technical Foundation.

### New Static Eliminator

A new device for eliminating static on paper passing through presses has been announced recently by Takk Laboratories, Newark, Ohio.

### New Dampener Material

A new material for dampening roller coverings and a new method of application are shown in the accompanying illustration of Stick-E-Bak, the adhesive roller covering being marketed by Vasei Manufacturing Co., 3303 Richmond St., Philadelphia 34. The company says the covering may be applied to a rubber or vulcanized oil roller, and does not require sewing, does not shrink, stretch or distort.



**FROM A  
ARCTIC  
IT'S  
TO  
EQUATOR  
68° F  
WITH THE TEMPERATURE CONTROLLED  
DOUTHITT DEVELOPING SINK**

Correct and uniform development of film negatives is of utmost importance in producing high class reproduction work and can only be accomplished by absolute control of the temperature of the processing chemicals.

The "Douthitt Temperature Controlled Darkroom Sink" meets every requirement for maintaining an even temperature at all times in the developer, hypo and stop baths and assures even, uniform developing. The temperature controlled storage cabinet offers facilities for storage of developer for instant use and for proper storage of a working supply of film.



This "D D C" type sink is constructed of stainless steel and has a refrigerating and heating unit, governed by a dual temperature control automatically maintaining an even temperature, which will remain constant through all seasons of the year.

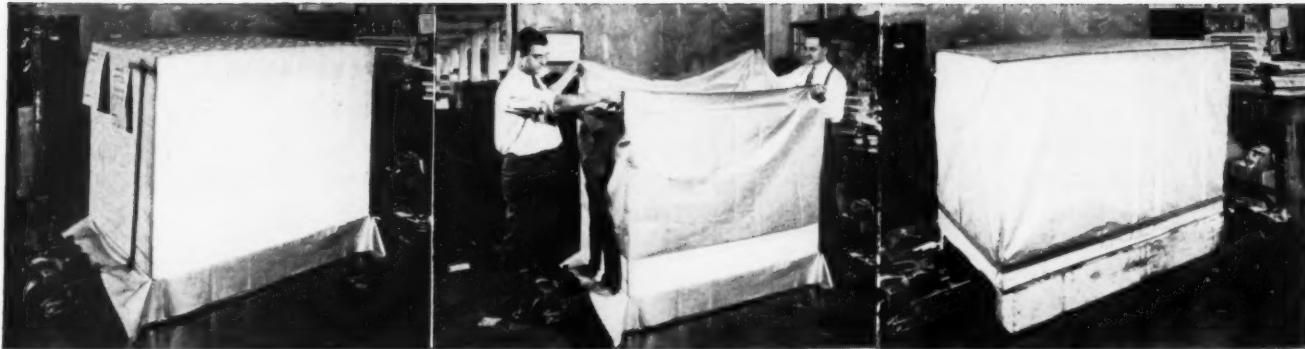
Plate making equipment for Lithography, Photo-Engraving, Photogravure, Silk Screen process and kindred arts.

Hundreds of our sinks are now in use in the "Graphic Arts" industry. Many of them are used for governmental purposes throughout the entire world, in all climates, giving excellent service.

*Send for catalog and information on our many items of  
standard and custom built equipment.*

**THE DOUTHITT CORPORATION**

650 W. BALTIMORE AVE.  
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## Test Paper Humidity Control at Baltimore Plant

**I**N tests recently conducted at Lord Baltimore Press, Baltimore lithographers and printers, the effects of humidity on paper were overcome through the use of a new material to protect skids of paper.

The enveloping material used in the tests is a form of Aquastop known as M-V-Bar, a synthetic, impregnated, coated and chemically treated strong fabric which is flexible over a wide range of temperature conditions and which is both water-proof and moisture-proof.

In the tests conducted in Baltimore the printed sheets, as received from the presses, were loaded on skid platforms upon which a sheet of M-V-Bar was first placed as shown in photograph A (above). When the load is completed, an envelope or pre-fabricated bag of M-V-Bar is inverted over the load, illustrated by photograph B.

The edges of the bottom sheet on which the load rests (note photograph A) are brought up and the envelope or bag drawn down over them. A temporary seal is then applied as in photograph C to hold the envelope or bag in place.

This simple procedure is said to have resulted in maintaining the humidity content of the paper at a pre-determined level and to have kept the paper in proper condition for working.

After using this method of protection for five months, for both warehouse stock and material in process, Lord Baltimore Press executives have pronounced this procedure a success.

The manufacturer of Aquastop M-V-Bar, Protective Coatings Corp.,

Belleville, N. J., states that this material, because of the strength of the base fabric, has high resistance to scuffing and abrasion and may be used repeatedly without deterioration. Tests show that this material may be flexed 135,000 times at 20 degrees below zero without cracking.

•

## Issues Series of Books

The first of a series of booklets on "How to Plan Printing to Promote Business" has just been issued by S. D. Warren Co., Boston paper manufacturers. Nine booklets in the series are to be published and distributed at intervals of two weeks. The titles of the booklets are: Business, Its Nature and Functions; Management, Its Functions and Responsibilities; Management and Its Corporate Society; Printing, the Essential Aid to Management; Printing—Its Forms and Designations; Printing—Types and Typography; Printing — The Processes of Reproduction; Printing — Papers and Their Uses; and, Mailing—Lists and Regulations.

The company has announced that any man or woman engaged in the planning or production of printing may enroll to receive these booklets without cost. The company's address is 80 Broad Street, Boston 1, Mass.

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## Book on Adv. Production

"Advertising Production," a 244 page, hard-bound book, by Ben Dalgin, director of art and reproduction of *The New York Times*, has just been published by McGraw-Hill Book Co., New York. Devoting most of

his attention to production for newspaper advertising, the author includes chapters on photoengraving, composition of advertisements, making of duplicate plates, newspaper printing, monotone rotogravure, color rotogravure, art for reproduction, and the production worker on the job. The chapter on composition contains considerable basic information on type and typography and the chapter on art for reproduction presents excellent material of value to a production worker in any reproduction process. The chapters on rotogravure deal with that process in step by step detail and discuss its application to newspaper publishing. The book is not concerned with lithographic reproduction although it summarizes briefly the principles of lithography. The book is generously illustrated with line drawings, diagrams, and photographs. It is priced at \$4.00.—RPL.

## Lawson Appoints Corris

Richard C. Corris has been named assistant sales manager of the E. P. Lawson Co., New York, David Schulkind, president, has announced. In addition to his sales work, Mr. Corris will supervise the company's export sales division. Prior to his navy discharge with the rank of Lt. Commander, Mr. Corris was associated with Marshall Field & Co., Sears, Roebuck, *Esquire Magazine*, and Box Service Corp.

Mr. Schulkind also said that deliveries are now being made on the Lawson 38" paper cutter and the multiple head drill slotter. The Lawson 44" and 50" cutters will be in quantity production soon, he said.



*Fine Papers*

**PAPER SALES CORPORATION**  
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DISTRIBUTORS OF QUALITY PAPERS TO  
LITHOGRAPHERS • GREETING CARD PUBLISHERS • PRINTERS AND CONVERTERS

○ **BLANKOT** ○  
Reg. U.S. Patent Office

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## **Supplymen Hold Dinner**

Printers Supplymen's Guild of Chicago held its annual Beefsteak Party, Dec. 6 at the Furniture Club.

## **PRINTING ON METAL**

(Continued from Page 35)

ther handling, are delivered fully dry from the far end of the oven. This development increased the press speed so that today the presses are capable of operating at a manufacturers' guaranteed speed of 4500 impressions per hour. Even higher speeds are being obtained under favorable conditions.

As the metal decorating field continued to grow, there was a demand for still larger and faster presses. Inquiries concerning presses capable of handling sheets weighing up to 60 pounds and ranging in size up to 48" x 72" were frequent.

This demand has now been satisfied with the development by Hoe of a heavy duty metal decorating press which is automatically fed and is capable of handling steel sheets as large as 48" x 72" and as heavy as 16 gauge or 1/16th of an inch.

That offset lithography on metal is going to make further rapid strides is indicated. How far it will be carried into the toy business, caps and closures, the automotive field, and small parts manufacture is anyone's guess. Certainly, metal decorators, using high-speed rotary offset lithographic machines, are looking to the future with full expectancy of increasing popularity with manufacturers and consumers alike.★★

## **GERMANY**

(Continued from Page 47)

The two firms, Herbst und Illig and J. C. Haas, have operated jointly in the past under the name of Raster Union. A disagreement caused them to sever connections a few years ago, however. At present, the owners are friendly again and are reconsidering joint operation.

Herr Eckerlin, of Herbst und Illig, said that they had not been able to do

business in the United States because facilities were not available there to repair their screens. He thought the same situation would preclude any future use of their screens in the U. S.

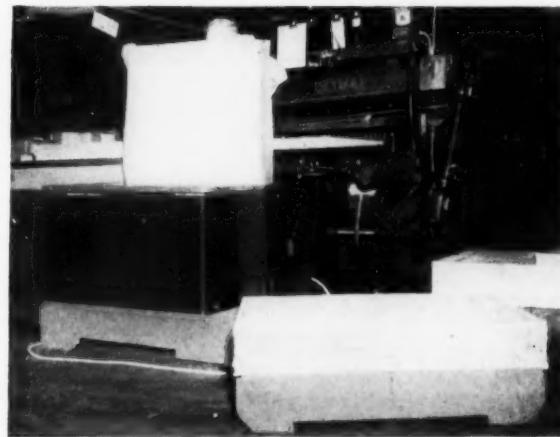
No information on contact screens was available at any of these plants.

Production capacity in Germany for halftone and gravure screens has been reduced only to a small extent by war damage. Manufacture is going on at present. Nearly full capacity could be restored within a

few weeks at most, and full capacity within about six months.

If procurement of halftone screens at any or all of these plants is contemplated, two factors should be considered seriously: the practicability of using metric screens with an otherwise English system; the practicability of altering the ruling machines to rule on the basis of the English system. The latter possibility has not been investigated.

(Next month more of this report will be published.—Editor.)



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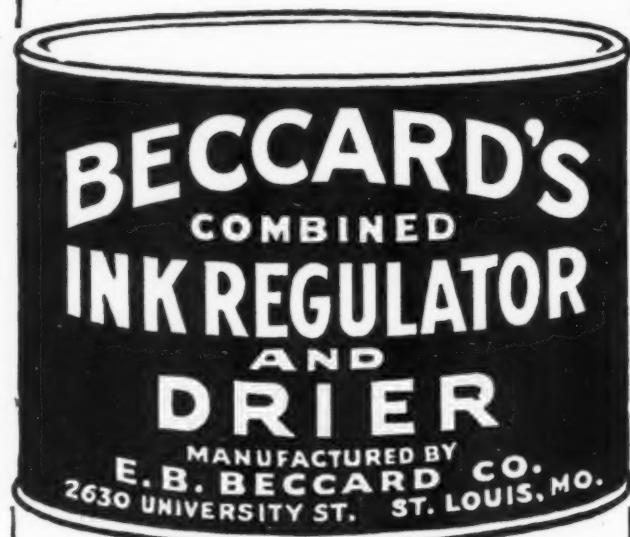
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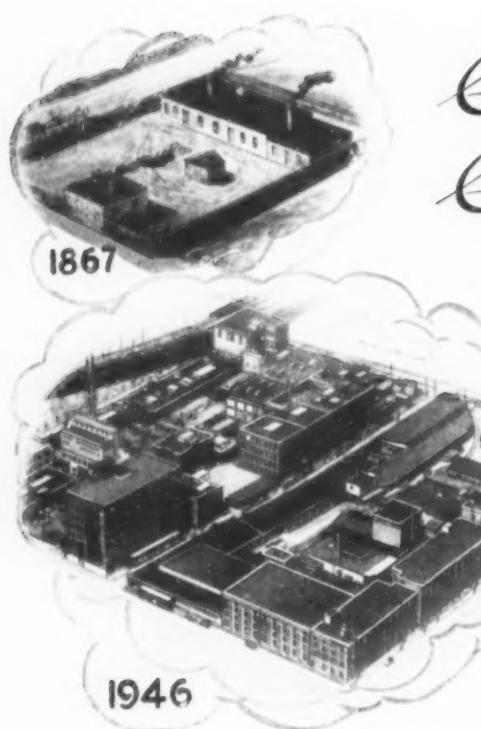
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### Photography

**\*Ilford Process Manual.** R. B. Fishenden. "Modern Lithographer and Offset Printer" 42, No. 9, September, 1946, pp. 163-4 (2 pages). The fourth edition of L. P. Clerc's book "Ilford Manual of Process Work" is reviewed. The chapter on negative making, both in monochrome and in color, brings this information up to date. A section on halftone principles is of particular value. Three-color photography, color separation, and colored inks are dealt with in detail. Special attention is devoted to moire patterns. ("Ilford Manual of Process Work" is published by Ilford, Ltd., London, Price 15S.)

**\*Photo-Lithography (Dot Reduction—Alternative Methods).** A. Haigh and H. M. Cartwright. "Process Engraver's Monthly" 53, No. 634, October, 1946, p. 274 (1 page). Among the ways discussed in this article in which attempts have been made to provide plates suitable for "dot etching" are the following: Processes using a metal base, light sensitive resin processes, wet collodion positives, bleached negative process. Some of these processes never got beyond the laboratory stage while others were tried and abandoned, either because of technical difficulties or because they were slow or unreliable.

**\*Photo-Lithography (Dot Reduction— Alternative Methods).** A. Haigh and H. M. Cartwright. "Process Engraver's Monthly" 53, No. 632, August, 1946, p. 218 (1 page). Alternatives to the usual present day technique of dot reduction with hypoferri-cyanide solutions are described. The use of the Peridak Process and its disadvantages are discussed. One drawback associated with hypo-ferricyanide

reduction is the risk of a residual brown image at the edges of the reduced dots. Some retouchers prefer to use iodine and cyanide rather than hypo-ferricyanide for this reason and also because the iodine-cyanide mixture remains active longer. Disadvantages, of course, include the poisonous nature of cyanides and the tendency for cyanide solution to soften the gelatine film. Formula is given for the iodine-cyanide solution.

**\*Technological Progress.** Ernest E. Jones. "Printing Equipment Engineer" 73, No. 1, October, 1946, pp. 42-3 (2 pages). Progress in photo-mechanical processes is summarized. Research and development work is still continuing. Plastic, new types of glass, and even lenses made from steel will be great improvements over those now in use. Halftone screens that make a line and halftone combined simply by changing filters, contact screens, and mezzograph screens all have a place in the reproduction process. Various diaphragm controls are described and it is pointed out that, although these controls are a great aid to a photographer, still a densitometer is almost a necessity for correct balance of color with the various filters. Progress is being made on camera lamps which will correct the majority of the faults of present lights. Electronic light control meters, mechanical masking for color corrections, the use of fluorescent water color paints for color reproduction, and color films are also mentioned.

**\*Colour News—Density Determinations of Colour Film.** "British Journal of Photography" 93, No. 4510, October 11, 1946, pp. 366-7 (2 pages). The Ansco Color densitometer makes use of the idea that a color density should

be expressed as numerically equal to the grey density to which it could contribute if put with just the right amount of its complementary to form a grey. The densitometer, by making density measurements in each of three narrow spectral bands by means of filters, a complete sensitometric evaluation of each layer could be deduced. This theory and the design and use of the densitometer is described. The question of whether the change of contrast of the film as a whole affects the hue is discussed.

**\*Color Photography.** Joseph Friedman. "American Photography" 40, No. 11, November, 1946, pp. 44-46 (3 pages). The evolution of color photography is discussed. The findings of Senebier, Seebeck, and Herschel on the action of colored light upon silver salts, and some of the early color photographic processes based on this reaction are discussed. These processes were very direct, involving a single layer of sensitive material, a single exposure in the camera, and a simple after-bath to destroy the sensitivity in the unexposed regions. However success with this process was the exception rather than the rule. Although at this time 3-color printing was fairly well established it was some time before its marriage with photographic methods for the preparation of printing plates. This rather complicated procedure, involving 3 exposures, and subsequent registration of three images has but in the last 10 years started giving way to more simplified processes again. Psychological, as distinguished from physical color, is discussed.

**\*Photographic Typesetting.** Eugene A. Nuelle. "Lithographers' Journal" 31, No. 7, October, 1946, p. 430 (1 page). There are two distinct methods in photo-typesetting; one actually sets type mechanically by photography; the other reproduces type already set to fit a given area. Phototypesetting and another typesetting invention, both of which produce photographic film in galley form, are discussed. Both of these processes will save considerable time in typesetting but neither is in actual production at this time. Type is reproportioned by means of special lenses that reduce or elongate the proof of a line to length or width wanted. These lenses also italicize or backslant prints of straight type. Photo lettering, in which fonts of specially printed characters fit in a holder and can be spaced to any length for photographing to correct size with use of normal proportion, can be done with any camera equipment and needs no special lenses. Reproportioning has actually been in use for several years.

**\*Photo-Mechanical Review.** J. S. Mertle. "National Lithographer" 53, No. 10, October, 1946, pp. 43, 82-3 (3 pages). A camera aperture was



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patented in 1936 by W. F. Richardson to accentuate the contrast of coarse screen halftones for letterpress newspapers. A feature of this invention was an automatically controlled arrangement of diaphragm plates, these forming square apertures of a size correlated to the camera extension. An electrically actuated diaphragm, intended mainly for photolitho halftones, was patented in 1939 by Richard P. Newick and was later changed and improved by R. R. Robertson and introduced as the Robertson Combined Diaphragm, Timer and Arc Lamp Control. The Linzell-Muller device employed no radically new features but was the first diaphragm control specifically devised for color work by photolitho halftone procedure. The Hansch system employed mathematical tables and was also one of the first to employ electronics as an aid in exposure and production of uniform results in halftone negatives.

#### **Printing Surfaces**

**\*Dry Lithography.** Charles F. Geese, "National Lithographer" 53, No. 10, October, 1946, p. 42 (1 page). Dry lithography is used successfully now for producing bank check tints, type labels and certain government tax stamps. However most of our present day presses are not built accurately enough to maintain the close tolerances required for printing by dry offset. The blankets cannot vary more than .001 of an inch. The same rule applies to the printing cylinders and inking rollers. The plate must be very accurate in thickness and of a copper that will not stretch under pressure. If a successful method of dry lithography can be worked out it will make long runs possible and, because of the rubber blanket principle, will produce halftone dots far superior to the present conventional wet lithographic method.

**\*Dichromate - Colloid Layers — III (Theories of Light Sensitivity).** P. C. Smethurst, "Process Engraver's Monthly" 53, No. 632, August, 1946, pp. 198-9 (2 pages). Three theories which purport to account for the hardening action of light on a dichromated-colloid layer are as follows: The first ascribes the hardening effect to oxidation; the second, postulates a tanning effect; Eggert's involves the quantum theory and is based on ionic reactions and absorption effects. The five requisites of a theory explaining light sensitivity in dichromate-colloid systems are listed and it is pointed out that all three of these theories fail to meet these requisites satisfactorily. The oxidation theory, which is the most inadequate, is explained in this article.

**\*Scum or Tint.** E. J. Kelly, "American Pressman" 56, No. 11, October, 1946, pp. 25-26 (2 pages). Among the

most common causes of scum are: failure to completely remove coating solutions; over exposure; thin negatives; dirty positives; improper etch; ink that is too thin or greasy; dirty, greasy, or poorly set water rollers, or poorly set dampeners or ink forms. Sometimes the paper or the water may cause a scum. These and other causes are discussed and remedies suggested. Tests are described to determine if scum is being caused by the ink, the paper, or if it is imbedded on the plate. General rules for etching a plate are given.

**\*Dichromate-Colloid Layers—V. P. C. Smethurst.** "Process Engraver's Monthly" 53, No. 634, October, 1946, pp. 254-5 (2 pages). The chromyl ion theory, put forth by Eggert, is explained. A new and tentative hypothesis for light-sensitivity which is based primarily on energetics is suggested.

**\*The Grain of Lithographic Printing Plates.** "Annual Report, 1944-45 of The Printing and Allied Trades Research Association," August, 1945, pp. 14-15 (2 pages). Work is being done by the Printing and Allied Trades Research Association in England to enable lithographic grains to be described in a precise manner. The three properties chosen for this investigation are: the surface area, the pore volume, and the depth. The methods developed for measuring areas and pore volumes are briefly described. Methods for measuring grain depth are in course of development.

#### **Paper and Ink**

**\*Experimental Manufacture of Paper for War Maps.** Charles G. Weber and Merle B. Shaw, "Paper Industry and Paper World" 28, No. 8, November, 1946, pp. 1137-40 (4 pages). A new map paper was developed early in World War II that greatly improved the quality and performance of war maps. The National Bureau of Standards cooperated in the development and, subsequently, determined by experimental manufacture how to make the paper from commercially available raw materials.

**Method of Applying Coating Films.** Mitchell Wilson, assignor to Frederick H. Levey Co. "U. S. Patent No. 2,405,249" (August 6, 1946). The method of drying a film of a coating composition comprising a solution in a solvent of two polar resins having dielectric constants greater than 3, which comprises establishing an electrostatic field by connecting a pair of spaced electrodes to a source of single-frequency alternating current and vaporizing the solvent from the film by subjecting it to said electrostatic field, one of said resins having its maximum dielectric loss at the selected frequency when the coating composition

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has a low viscosity and contains the major portion of the solvent and the other of said resins having its maximum dielectric loss at the selected frequency when said solution has a high viscosity approaching dryness whereby a substantially continuous heating effect is maintained during vaporization of the solvent, "Official Gazette" 589, No. 1, August 6, 1946, p. 81.

**Lithographic Printing Ink.** Dominic J. Bernardi and Robert T. Florence, assignors to Interchemical Corporation. "U. S. Patent No. 2,406,795" (September 3, 1946). A lithographic printing ink which shows considerably reduced greasing as compared to a similar ink made with bodied linseed oil, comprising pigment dispersed in a vehicle, the essential basis of which is the ester of pentaerythritol and tall oil, the ratio of ingredients being such that the composition has the typical stiff body of lithographic printing inks. "Official Gazette" 590, No. 1, September 3, 1946, p. 73.

**\*Forecasting Printability by Oil Absorption Measurements.** V. V. Vallandigham. "Paper Trade Journal" 123, No. 17, October 24, 1946, pp. 39-41 (3 pages). Since the receptivity or resistance of a paper surface to printing ink vehicles is a factor of major importance in controlling the printability of that sheet, a test apparatus to measure that property would be very useful in evaluating papers and aid in the selection of the proper type printing ink. The Photo Electric Absorption Meter was developed by the author to evaluate the degree of efficiency of paper surface sized with an oil resistant material. Test results are given for several papers to indicate the usefulness of the instrument.

#### General

**\*Planning the Offset Department.** R. Ernest Beadie. "Inland Printer" 118, No. 2, November, 1946, pp. 63-66 (4 pages). A superintendent should be in charge of production activities; all work funnels from the sales and planning departments through his office. A schedule of work on hand or in prospect should be drawn up and production based upon it. Suggestions are given for the layout of departments and items in each department to permit the continuous motion in one direction. The advantages and disadvantages of having a platemaking department in the plant are weighed. Equipment and materials necessary in a platemaking department are listed and their efficient arrangement discussed. This article points out the necessity of having the presses, platemaking equipment, and camera installations in three separate departments. Layout illustrations are given.

**Leadership Training in Offset Lithography.** Phillips Austin. "Special Subject Text No. 413, Lithographic Technical Foundation, Inc." 131 East 39th Street, New York. Price-\$1.00. A text prepared for foremen, supervisors, and heads of departments in lithographic plants. It covers responsibility, employee relationships, production control, waste control, health and accident hazards, and places emphasis on maintenance of high morale.

**\*Photo - Mechanical Developments.** W. C. Huebner. "National Lithographer" 53, No. 10, October, 1946, pp. 36, 72 (2 pages) or "Lithographers' Journal" 31, No. 7, October, 1946, pp. 434, 471 (2 pages). The growth of offset printing since 1906 is discussed. The help given to the lithographic industry by the Lithographic Technical Foundation is mentioned. Suggestions made for further improving the industry include: dry offset; the elimination of graining plates and the gumming procedures when the press stops; one shot, one plate, four-color cameras; colorvaluematchers; straight line image reversing cameras; page making equipment and processes; phototypesetting composing machines; short run multicolor rotary proof presses; cylinder making equipment, unified printing presses; and new and faster finishing equipment.

**\*The Lithographic Technical Foundation—Achievements and Progress.** Charles W. Frasier. "National Lithographer" 53, No. 10, October, 1946, pp. 32-3, 78, 80 (4 pages). The establishment of the Lithographic Technical Foundation is described. Some of its projects mentioned in this article which have provided benefits for the industry include the research on paper, the research on rubber blankets, and the publication of manuals, texts, bulletins and training courses. The need for an increased budget for both the research and educational activities is discussed and lithographers are urged to support the Foundation by maintaining an annual sustaining membership. The policies of the Lithographic Technical Foundation are briefly set forth.

**\*Air Conditioning.** B. Offen. "Modern Lithography" 14, No. 10, October, 1946, pp. 47, 49, 51 (3 pages). Air conditioning is the processing and treatment of air to maintain a predetermined temperature and relative humidity for a specific area. Effects of temperature and humidity variations upon chemicals, coatings, films, plates, and paper are discussed. The benefits of air conditioning in the following departments are described: photo gallery and dark room, photo composing and transfer department, paper seasoning room, and press room. The cost of all-year air conditioning is approximated and the factors that

affect this cost are considered. Some of the factors involved in deciding on type of air conditioning equipment are listed.

**Color Harmony Manual.** Color Laboratories Division, Container Corporation of America — Manufacturer. "Paper Industry and Paper World" 28, No. 8, November, 1946, p. 1222. The new edition of this manual consists of 12 handbooks containing 680 movable color chips, a work chart, a removable gray scale holder, a twenty-four page illustrated text, and a buckram covered box. ★★

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### Charles G. Heiden Dies

Charles G. Heiden, for many years associated with the Miehle Printing Press and Mfg. Co., as a mechanical engineer, died November 13 in his home, at the age of 58 years. Surviving are his widow and a son, Wilbert F. Heiden.

### Kansas City Man Dies

Elmer C. Horst, 49, president of the Kansas City Lithographing Co., Inc., died unexpectedly at his office in Kansas City on November 20. He is survived by his wife, a daughter and a son.

### Wheeling Man Dies

Ralph B. Taylor, 50, foreman of the job printing department of the Wheeling News Lithograph Co., died following a heart ailment November 1.

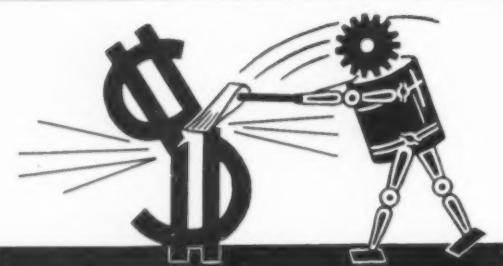


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 Medium—Has body of #1 Litho Varnish  
 Heavy —Has body of #3 Litho Varnish

A long list of satisfied users claim they will never go back to the Linseed Varnish for ink reducing, even if Litho Linseed Varnish becomes readily available.

HANCO'S SPECIAL LITHO INK REDUCERS will reduce ink without causing greasiness or scum—do not materially reduce color strength—make ink trap better and lay smoother—aid in overprinting—do not affect drying qualities.

Priced at \$3.85 per gallon

BE SURE TO SEND FOR YOUR TRIAL QUART  
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Perfect desensitizer for zinc and aluminum—Used for more than twelve years by leading lithographers. Trial Order—\$5.00 per single gallon. In quantities of 5 gallons or more—\$4.75 per gallon delivered. Further details on Request.

PARKER PRINTING PREPARATIONS CO.  
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POMONA PARK, FLA.

to-Plate; Photo-Composing Machine, with maximum press plate 33 x 44, maximum work area 28 x 42, complete with overhead lamp carrier, extra lamp carrier, arc lamp, motor and pump, includes several sizes of negative holders and register devices. Also, Vertical type Whirler, Vacuum Print Frame with Macbeth Arc Lamp. Equipment may be inspected and seen in operation if contacted promptly. Commercial Printers, Inc., 1039 13th Street, Columbus, Georgia.

#### **Robert Bruck, ALA Dies**

Robert Bruck, first international vice-president and secretary-treasurer of the Amalgamated Lithographers of America, died November 18 in Ravenswood Hospital, Chicago, at the age of 71 years. Mr. Bruck had been active in affairs of the union for over four decades and at his funeral services were representatives of his organization and leaders in the lithographic industry from throughout the nation.

In 1915 Mr. Bruck was active in the artists' group in the formation of the ALA from five craft unions. He was president of the Chicago local for about 10 years prior to serving as an international officer. He was widely known by both employers and employees. A sister, Mrs. Gertrude Lafler, survives.

#### **ALA Appoints Mertz**

Oliver Mertz has been appointed vice-president and secretary-treasurer of the ALA, International, succeeding the late Robert Bruck, William Riehl, international president announced.

#### **William N. Irish Dies**

William Norman Irish, 64, a figure in the New York lithographing trade for many years, died recently. He retired about three years ago after ten years as vice president of Latham Lithographing Corp., and prior to that was vice president of Rogers-Kellogg-Stillson, Inc., for about 20 years.

#### **Giegengack Speaks**

Hon. A. E. Giegengack, public printer of the U. S., was the speaker at the Round Table Club, November 22, sponsored by Baldwin Paper Co., New York.

#### **Huber Joins Sun Chemical**



Walter Huber (above) has been appointed vice-president of General Printing Ink Div., Sun Chemical Corp., New York. John F. Devine, division president, announced December 2. Mr. Huber, a Cornell graduate, joined J. M. Huber, Inc., about 1920 and after laboratory and sales work became company president in 1933. After nine years in that office he left the Huber firm and engaged in research in the graphic arts field. He was president of the National Association of Printing Ink Makers from 1936 to '38, and was a director for several years.

#### **Organize N. Y. Firm**

The Tru-Copy Offset Co. was organized October 1 at 95 Broad St., New York. Equipment includes Mimeographs and Multiliths, and a large size Multilith is on order. Direct mail, duplicating and small offset work is being done. Michael D. Connolly is president.

#### **New N. Y. Firms**

Quad Offset Corp. was recently formed at 152 West 42nd St., New York.

Also listed at the same address is Federation Offset Co. (S. Dingilian).

Columbia Photo-Offset & Mimeograph Co. (F. Grant), has been announced at 180 Broadway.

#### **Honor J. S. Mertle**

J. S. Mertle, Cincinnati, authority on photomechanical reproduction, received a Fellowship Award from the Photographic Society of America during November. Mr. Mertle is already a Fellow of the Royal Photo-

graphic Society of Great Britain, and a member of the Franklin Institute, the American Museum of Photography and the International Photo Engravers Union. He was technical director of the latter organization from 1937 to 1944.

#### **Stassen is Contest Judge**

Former Governor Harold E. Stassen is to be one of the judges in the 11th annual essay contest sponsored by International Printing Ink. Other judges will be Harry L. Gage, Mergenthaler Linotype Co. chairman; Lowell Thomas; Wesley A. Sturges, Yale University; and Norman Chandler, publisher, Los Angeles Times. The theme is "Printing's Place in the Postwar World."

#### **Capital Firm Expands**

National Litho Co., Washington, D. C. recently installed an ATF 24" process camera and other new equipment for color process work, and expects early delivery on a 35 x 45" press and additional platemaking equipment. Formerly producing bank stationery and other products, mostly in black and white, the company will now produce color process work. Robert J. Brady recently joined the firm as plant superintendent.

#### **Wash. Firm Progresses**

Good progress is being made by Litho Print Co., 3233 K. St., N.W., Washington, D. C. since it was opened for business last June, Joseph Hennage, owner, reports. The company now operates a 14 x 20" Webendorfer offset press, duplicating equipment, a platemaking and stripping department, and a Baum folder. A Harris press is on order, Mr. Hennage said.

#### **Design Group Studies Offset**

A triple feature offset night was held December 5 by the Chicago Society of Typographic Arts at the Morrison Hotel. A. Albert Freeman, executive director of Books by Offset Lithography, Inc., was the speaker, the Books by Offset exhibit was on display, and the new Harris-Seybold motion picture "How to Make a Good Impression," was shown.

MAKERS OF  
**THE FINEST QUALITY COLOR PLATES**  
 FOR  
**OFFSET LITHOGRAPHY**

THE STEVENSON PHOTO COLOR SEPARATION CO.

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EGG ALBUMIN SCALES  
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 ALBUMIN specifically prepared for  
 photo-mechanical purposes by our  
 method of filtering before dehydrating.  
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 compound their own formulas.

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 ROCKFORD, ILL.



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 and LITHOGRAPHIC  
 INKS**

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PHILADELPHIA  
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NEW YORK  
 KANSAS CITY  
 LOS ANGELES

*Your best friend during periods of  
 Equipment Shortages is a*

**GOOD MACHINIST**

We have been friends of lithographers  
 Since 1901

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 RECONDITIONED • PLANTS MOVED*

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**ROLLERS**



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**FOR PLATEMAKING  
 EQUIPMENT  
 FILMS AND CHEMICALS**

PHOTO PROCESS DEPARTMENT

**THE CALIFORNIA INK CO., Inc.**  
 SAN FRANCISCO LOS ANGELES PORTLAND SEATTLE  
 SALT LAKE CITY SHANGHAI, CHINA

## Packaging Institute Meets

"Seminars," designed for discussion of the packaging problems of particular industries featured the eighth annual two-day meeting of the Packaging Institute in Chicago last month. While two general sessions were devoted to subjects of broad interest, the remainder of the program time was organized for group conferences of specific industries.

"Protection Against Melting in Candy Packaging" was scheduled for discussion by Chas. S. Foley of Nashua Gummed & Coated Paper Co., Nashua, N. H., and J. L. Thomas, U. S. Printing and Lithographing Co., Cincinnati, discussed the "Future of the Beverage Gift Package."

## Montreal Firm Celebrates

The golden anniversary of Montreal Lithographing Co., Ltd., and the association with it of the president, J. W. C. Taylor for the same 50 years, was celebrated November 15 at a banquet at Queen's Hotel, Montreal. In addition, 16 veteran employees were presented with long service awards. Speakers included the president who gave a short history of the company; Fred Downes, one of the employees, David O. Riddell, vice-president, and L. B. Campbell, secretary-treasurer.

## Chicago Fund Near Goal

Chicago graphic arts concerns contributed over \$106,000 to the city's annual Community Fund, according to tabulations made in mid-November. Since this represents only about 76 per cent of the quota assigned to the group, further efforts were planned to reach the full goal of \$140,000 by Christmas. George Benton of the Meyercord Co., assisted by Jack Hagen of Workman Mfg. Co., and Gordon Hall, western manager of the Lithographers National Association, had charge of solicitations from lithographers, of whom, it was stated, about 30 per cent had made contributions.

## N. J. Class in Offset

A course in offset press work is being given at the Essex County Vocational School, 275 Sussex Ave., Newark, N. J.



DECEMBER, 1946

Aljen Service . . . . .	Nov.	Litho Chemical & Supply Co. . . . .	21
American Graded Sand Co. . . . .	54	Lithographic Plate Graining Co. of America . . . . .	81
American Type Founders . . . . .	23		
American Writing Paper Corp. . . . .	20		
Anseco . . . . .	16		
Aldine Paper Co., Inc. . . . .	88		
Baker Reproduction Co. . . . .	88		
Bartels Co., Gordon . . . . .	92		
Baum, Russell Ernest . . . . .	39-42		
Becard Co., E. B. . . . .	76		
Bensing Bros., & Deeney . . . . .	Bet. 62 — 63		
Bingham's, Sam'l, Son Mfg. Co. . . . .	3rd Cover		
Bingham Bros. Co. . . . .	92		
Brown Bridge Mills . . . . .	Nov.		
Bulkey, Dunton & Co. . . . .	9		
California Ink Co., Inc. . . . .	92		
Cantine Co., Martin . . . . .	Nov.		
Carew Mfg. Co. . . . .	62		
Central Compounding Co. . . . .	67		
Champion Paper & Fibre Co. . . . .	26		
Charlton Co., F. M. . . . .	76		
Chillicothe Paper Co. . . . .	Nov.		
Color Separation Co. . . . .	Nov.		
Coxhead Corp., Ralph C. . . . .	82		
Craftint Mfg. Co. . . . .	86		
Cramer, G., Dry Plate Co. . . . .	88		
Creative Prods. Co. . . . .	Nov.		
Crescent Ink & Color Co. . . . .	Nov.		
Crocker-McElwain Co. . . . .	Nov.		
Dayton Rubber Mfg. Co. . . . .	25		
Di-Nor Co. . . . .	46		
Dixie Plate Graining Co. . . . .	Nov.		
Douthitt Corp. . . . .	72		
Driscoll, Martin, Co. . . . .	74		
Du Pont, E. I. de Nemours & Co. . . . .	48		
Eastern Corp. . . . .	Bet. 18 & 19		
Eastman Kodak Co. . . . .	37		
Esleck Mfg. Co. . . . .	85		
Falulah Paper Co. . . . .	Nov.		
Fisher Bookbinding Co., Inc. . . . .	Nov.		
Fox River Paper Co. . . . .	12		
French, Chas. A., Co. . . . .	Oct.		
Fuchs & Lang Div. . . . .	Bet. 10 & 11		
Gaetjens, Berger & Wirth, Inc. . . . .	80		
General Scientific Products . . . . .	70		
Godfrey Roller Co. . . . .	Nov.		
Goetz American Optical Co., C. P. . . . .	86		
Graphic Arts Corp. . . . .	11		
Gummed Products Co. . . . .	86		
Hammermill Paper Co. . . . .	3		
Handschy, A. E., Co. . . . .	90		
Harris-Seybold Co. . . . .	24 & 4th Cover		
Hoe, R. & Co. . . . .	60		
Howard Paper Mills . . . . .	Nov.		
Hunt, Philip A., Co. . . . .	69		
International Paper Co. . . . .	7		
International Press Cleaner & Mfg. Co. . . . .	Nov.		
International Printing Ink . . . . .	6		
Johnson Co., Charles Eneu . . . . .	Nov.		
Kimble Electric Co. . . . .	90		
Kohl & Madden Printing Ink Co. . . . .	58		
Lawson Co., E. P. . . . .	4		
Zarkin Machine Co. . . . .	13		
Zarwell, H. D. . . . .	Nov.		

(The Advertisers' Index has been carefully checked but no responsibility can be assumed for any omission.)

## TALE ENDS



"...and what's more, that rig  
is an insult to my intelligence!"

## ...no Santa Claus?

SALES success is seldom the result of a visit from Santa Claus. It usually comes to those who plug away month in and year out with regular selling and advertising. That the most successful sales organizations have invariably been the most prolific and regular advertisers is not a coincidence. In advertising, as in selling, there is no Santa Claus. The steady pluggers get the business.

If you have in mind playing Santa Claus to yourself in 1947 in the field of Lithography, investigate the possibilities of regular advertising in

## MODERN LITHOGRAPHY

254 WEST 31st STREET

NEW YORK 1

Member, Audit Bureau of Circulations

IN handling many photographs of groups of people such as those taken at the recent NAPL convention we take great care in trying to keep all of the captions straight. We made a slip in the photos published in October however, and labeled Edwin G. Tibbils of Eastman Kodak Co. with the name of a young gentleman from another photo firm. If we flattered either man, we are happy; if not, we apologize.



The Tuberculosis Association Christmas seals this year were lithographed by four firms, Eureka Specialty Printing Co., Edwards & Deustch Lithographing Co., Strobridge Lithographing Co., and U. S. Printing & Lithographing Co. The identifying mark of each lithographer, E. D. S. and U. respectively, is on the 86th seal on each sheet, in the ninth horizontal row, the sixth seal from the left. The initial is just above the R in the word "Greetings."



Four-color inserts which can be printed in advance on flat sheets can now be economically bound into metropolitan newspapers with a machine developed by the Boston *Herald-Traveler* and Dexter Folder Co. The machine is said to tip in these pre-printed sheets, making deliveries in register to a newspaper web at speeds up to 50,000 per hour. It will work on any newspaper press and will tip in single or folded sheets faster than any known press speed.

When you start talking about full page newspaper ads in four colors on some kind of rough or soft finish stock, you are talking about offset. Looks like another field where offset lithography can do its stuff.



Hearty Greetings of the Season to all, if there be any, who read Tale Ends.

**SAM'L BINGHAM'S SON MFG. CO.**  
MANUFACTURERS OF  
**PRINTERS' ROLLERS**  
**LITHO-OFFSET ROLLERS**

**RUBBER**  
**NON-MELTABLE**  
**FABRIC-COVERED**  
**ROTOGRAVURE**

# **ROLLERS**

**OFFSET**  
**COMPOSITION**  
**VARNISH & LACQUER**  
**GRAINING**

## **OFFSET ROLLERS**

**LITHO-PRINT (Rubber or Synthetic)**  
for Durability and Printing Qualities.

**SAMSON (Vulcanized Oil)**  
Lower Priced but with Equally  
Good Printing Qualities



ASK FOR OUR QUOTATION

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ATLANTA 3  
CHICAGO 5  
CLEVELAND 14  
DALLAS 1

DES MOINES 2  
DETROIT 10  
HOUSTON 6  
INDIANAPOLIS 2

KALAMAZOO 12  
KANSAS CITY 6  
MINNEAPOLIS 15  
NASHVILLE 3

OKLAHOMA CITY 6  
PITTSBURGH 3  
ST. LOUIS 2  
SPRINGFIELD, O.

*Roller Makers since 1847*

► HOW OFFSET LITHOGRAPHY SERVES INDUSTRY



# Catalogs

During the past several years, catalogs, for all practical purposes, have become the forgotten selling tool. The reasons are obvious. Today, however, manufacturers are clearing the decks for intensive selling action.

New or improved products, new channels of distribution, new sales personnel—these are but a few of the factors that will determine the pattern for catalogs of tomorrow.

Above all, these catalogs must be highly informative. They must help the salesman tell his story quickly and convincingly. Liberal use of cutaway views, exploded views, diagrams, dimensional drawings and any number of equally effective illustrative techniques will be used to back up the salesman in his efforts to provide the buyer with the information he needs.

In situations like these, the offset lithographic process scores most heavily. It produces sharp, clear impressions... it minimizes plate costs... it permits effective and, at the same time, economical use of color... its greater speeds cut down press time.

On the new Harris 17 x 22", single-color offset press, featuring four form rollers, trouble-free adjustments and speeds up to 7000 iph., these advantages are readily turned into profits. As money-making units in any size shop devoted exclusively to offset, or for combination letterpress and offset shops, the Harris 17 x 22" gives you a better run for your money.



## HARRIS - SEYBOLD

HARRIS PRESSES • SEYBOLD CUTTERS • OTHER GRAPHIC ARTS EQUIPMENT  
Harris-Seybold Company • General Offices, Cleveland 5, Ohio

